RCRA FACILITY ASSESSMENT

for

EVERGREEN OIL, INC. 6880 Smith Avenue Newark, California 94560 EPA ID No. CAD 980887418

Prepared By:

California Environmental Protection Agency
Department of Toxic Substances Control
Region 2
700 Heinz Avenue, Building "F"
Berkeley, California 94710

APRIL 1993

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2 00 HEINZ AVE., SUITE 200 BERKELEY, CA 94710-2737



April 16, 1993



Mr. Jeffrey Zelikson U.S. Environmental Protection Agency Region IX 75 Hawthorne Street San Francisco, California 94105

Dear Mr. Zelikson:

TRANSMITTAL OF RCRA FACILITY ASSESSMENT (RFA) FOR EVERGREEN OIL, INC. LOCATED AT 6880 SMITH AVENUE IN NEWARK, CA. EPA ID NO. CAD 980887418

We are pleased to send you the RCRA Facility Assessment (RFA) for the Evergreen Oil, Inc. located at 6880 Smith Avenue in Newark.

We certify that the following statements are true:

- 1. The RFA conforms with RCRA guidance.
- The RFA is technically sound.
- 3. The RFA is administratively complete.

If you have any questions regarding this RFA, please contact Daisy Lee at (510) 540-3933.

Sincerely

Charlene F. Williams, Acting Chief

Facility Permitting Branch

Enclosure

See next page for cc



Mr. Jeffrey Zelikson April 16, 1993 Page 2

cc: Ms. Karen Scheuermann (w/o enclosure)
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, California 94105

RCRA FACILITY ASSESSMENT

for

EVERGREEN OIL, INC. 6880 Smith Avenue Newark, California 94560 EPA ID No. CAD 980887418

Prepared By:

California Environmental Protection Agency
Department of Toxic Substances Control
Region 2
700 Heinz Avenue, Building "F"
Berkeley, California 94710

APRIL 1993

EXECUTIVE SUMMARY

In 1984, the United States Congress amended the Resource and Conservation and Recovery Act (RCRA) by passing the Hazardous and Solid Waste Amendments (HSWA). As a result, Section 3004(u) of RCRA, as amended by HSWA, and Title 40 Code of Federal Regulations, Section 264.101, and the Health and Safety Code, Section 25200.10 provided the United States Environmental Protection Agency (U.S. EPA) and the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) the authority to require comprehensive corrective action on Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs) at facilities applying for a Hazardous Waste Facility Permit. The primary objective of the corrective action program is to clean up releases of hazardous waste or hazardous constituents that threaten human health or the environment. The corrective action program applies to all operating, closed and closing units at the facilities.

To achieve this objective, a RCRA Facility Assessment (RFA) is conducted to identify and evaluate the SWMUs and AOCs. The purpose of a RFA is to determine whether a release of hazardous waste or hazardous constituents has occurred from SWMUs or AOCs and to determine the need for further investigation to be performed if necessary.

A RFA was conducted at the Evergreen Oil, Inc. (Evergreen) facility in Newark, California. Evergreen has been operating at 6880 Smith Avenue in Newark since 1986. Evergreen is an oil recycling facility. It accepts used lubricating oils from service stations, automative repair facilities, and quick oil change businesses. The used oils delivered to Evergreen are stored in storage tanks prior to reclamation. In addition to these activities, the facility also accepts and stores ethylene glycol prior to disposal at an off-site permitted facility.

The assessment for this RFA was based on information found in the files of the U.S. EPA in Region IX, Cal/EPA in Region 2, Bay Area Air Quality Management District (BAAQMD), the City of Newark Fire Department and the Union Sanitary District. No files were available at the Regional Water Quality Control Board (RWQCB) for the San Francisco Bay Region. Files at the County of Alameda were carbon copy correspondence from Cal/EPA. A Visual Site Inspection (VSI) was also conducted to inspect the entire facility for evidence of any release of hazardous waste and identified and photographed all SWMUs and AOCs.

A total of 8 SWMUs and 6 AOCs were identified as a result of the VSI. Some of these units are comprised of multiple individual structures such as tanks which have been grouped as a single SWMU because of similarity of construction, waste managed, and release controls. These units are listed as follows:

SWMU #1: Tank Farm

SWMU #2: Oily Water Separators

SWMU #3: Process Area

SWMU #4: Container Storage Area

SWMU #5: Truck Loading/Unloading Area

SWMU #6: Filter Cleaning Area

SWMU #7: Process Area Containment Vault

SWMU #8: Loading/Unloading Area Containment Vault

AOC #1: Laboratory - Accumulation Storage Area
AOC #2: Control Room - Accumulation Storage Area

AOC #3: Former Oil Filter Storage Areas

AOC #4: Unpaved Area AOC #5: Odor Emissions

AOC #6: Alameda County Flood Control Channel

Table II on page 6-3 provides a summary of release potential to the environmental media from the SWMUs identified in this report. The evironmental media includes air, surface water, subsurface gas, and soil and groundwater. This report has found 4 of the 8 SWMUs to have either a medium or high release potential to the soil and groundwater and surface water. The SWMUs are identified as follow:

Medium Release Potential to Soil and Groundwater

SWMU #1: Tank Farm

SWMU #4: Container Storage Area

High Release Potential to Soil and Groundwater

SWMU #3: Process Area

SWMU #5: Truck Loading/Unloading Area

Medium Release Potential to Surface Water

SWMU #1: Tank Farm SWMU #3: Process Area

SWMU #4: Container Storage Area

SWMU #5: Truck Loading/Unloading Area

The SWMUs listed above do not provide adequate secondary containment. Since cracks, gaps, and deterioration were found in the secondary containment, it is recommended that improvements be made. Furthermore, it is recommended that a specific area in the process area, identified in photos #16 and #17 be investigated for possible soil and groundwater contamination.

Four other SWMUs were determined to have an unknown release potential to the soil and groundwater because the condition of their secondary containment is unknown. It is recommended that further investigation be conducted on the integrity of the secondary

containment of these four SWMUs. These four SWMUs are identified as follow:

SWMU #2: Oily Water Separators SWMU #6: Filter Cleaning Area

SWMU #7: Process Area Containment Vault

SWMU #8: Loading/Unloading Area Containment Vault

The impact to other environmental media; air, surface water, subsurface gas, from the SWMUs identified in this report were determined to be low. Therefore, no further investigation is required at this time. Furthermore, no additional RCRA facility investigation work is necessary at this time for the AOCs identified.

TABLE OF CONTENTS

Execu	utive Summa	ry
1.0	Introductio	n
2.0	 2.1 Fac 2.2 Des 2.3 Haz 2.4 Per 2.5 Enf 	scription 2-1 ility Ownership 2-1 cription of Hazardous Waste Activities 2-1 ardous Waste Management 2-2 mit Status 2-3 orcement Status 2-3 Location and Features 2-4
3.0	3.1 Sur. 3.2 Gro 3.3 Sur. 3.4. Wir 3.5 Ten	ntal Settings 3-1 rounding Areas 3-1 undwater 3-1 face Water 3-2 nd Rose 3-2 eipitation 3-2
4.0	4.1 Tan 4.2 Oily 4.3 Pro 4.4 Cor 4.5 Tru 4.6 Filt 4.7 Pro	tainer Storage Area 4-14 ck Loading/Unloading Area 4-14 cers Area 4-16 cers Area 4-16 cers Area 4-17 cers Area 4-17 cers Area Containment Vault 4-19 ding/Unloading Area Containment Vault 4-21
5.0	Areas of C AOC #1: AOC #2: AOC #3: AOC #4: AOC #5: AOC #6:	Oncern 5-1 Laboratory 5-2 Control Room 5-2 Former Oil Filter Storage Areas 5-2 Unpaved Area 5-2 Odor Emissions 5-3 Alameda County Flood Control Channel 5-3
6.0	Conclusion	s 6-1
7.0	Recommendations	

8.0 Visual Site Inspection			
9.0 References			
TABLES			
Table II - Tank System Description Table II - Summary of Release Potential from SWMUs			
<u>FIGURES</u>			
Figure 1 - Location Map Figure 2 - Facility Plans Figure 3 - Floodplain Map Figure 4 - Tank Farm Map Figure 5 - Wind Rose			
APPENDICES			
Appendix A - Tank Explosion Incident Information Report Appendix B - Flow Diagram of Used Oil Processing Appendix C - Locations of Sampling and Analysis Results of Unpaved Area Appendix C1- Photo and Lab Results of the Unpaved Area Appendix D - Certification of Compliance Appendix E - Summary of Incidents Appendix F - Oil Spill Incident Report Appendix G - Bay Area Air Quality Management District Permit Appendix F - VSI Photographs			

2

1.0 INTRODUCTION

The 1984, the Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) provided U.S. EPA and Cal/EPA with the authority to require comprehensive corrective actions on all solid waste management units (SWMUs) and other areas of concern (AOCs) where releases of hazardous constituents have occurred that threaten human health or the environment. This authority applies to all facilities which currently treat, store, or dispose of hazardous waste or have done so in the past. The intent of this authority is to address releases of hazardous constituents to soil, groundwater, surface water, air, and the generation of subsurface gas.

In order to accomplish this objective, a RCRA Facility Assessment (RFA) is performed. The RFA is the first phase in the RCRA corrective action program and consists of one or more of the following tasks: preliminary review (PR) and evaluation; visual site inspection (VSI); and, when necessary, a sampling visit and subsequent analysis. Other phases, if warranted, are the RCRA Facility Investigation (RFI) to characterize releases and the corrective measures (CM) phase that proposes actual cleanup measures. These two phases are performed by the facility owner/operator either under the Corrective Action Schedule of Compliance in the permit or under an enforcement order.

The RFA is performed to assess if a release of hazardous waste or hazardous constituents has occurred from a SWMU. The main components of an RFA are to identify and gather information on releases at the RCRA facility, evaluate SWMUs for releases to all media (soil, groundwater, surface water, air, and subsurface gas), and make determinations regarding releases of concern and the need for further action and interim measures at the facility.

A RFA for the Evergreen Oil, Inc. facility located at 6880 Smith Avenue in Newark, California was conducted by DTSC. This RFA report provides a summary of the PR, data evaluation, and VSI. Primary sources of information utilized in the review include inpsections reports, correspondence, and facility records found in the files of U.S. EPA in Region IX, Cal/EPA in Region 2, Bay Area Air Quality Management District, the City of Newark Fire Department and the Union Sanitary District. No files were available at the Regional Water Quality Control Board (RWQCB) for the San Francisco Bay Region. Files at the County of Alameda Health Department were carbon copy correspondence from DTSC.

2.0 FACILITY DESCRIPTION

2.1 Facility Ownership

Evergreen Oil, Inc. (Evergreen) is owned by Evergreen Holding, Inc. located in Irvine, California. Its transporter of hazardous wastes is Evergreen Environmental Services (EES) which is a subsidiary of Evergreen. Evergreen is located at 6880 Smith Avenue in the City of Newark. The facility was constructed in 1985 on undeveloped land. Operation did not begin until 1986.

2.2 <u>Description of Hazardous Waste Activities</u>

Evergreen's primary hazardous waste activity at 6880 Smith Avenue is the storage and treatment of used lubricating oils. Storage of ethylene glycol is also conducted. EES, acting as the transportor, collects the wastes from small generators throughout Northern California and selected locations in Nevada. EES picks up and transports the used oil to Evergreen in Newark. Used oil from independent haulers is also accepted at the facility.

Prior to accepting a load of used oil from a generator, the driver of the truck tests for the presence of halogens in waste oils by using the copper wire test. If the test for halogens is positive then a Dexsil CLOR-D-TECT test is conducted and if the CLOR-D-TECT test indicates halogens above 1,000 parts per million (ppm) then arrangements are made to pick up the "hot oil" with a separate EES truck. Waste oil with more than 2,500 ppm of total halogens is either rejected or transported to Systech, a cement kiln located in Lebec, California. Used oil having less than 1000 ppm of total chlorine is comingled with loads from other stops until the truck is full. A modified manifest system is used by EES for waste oil collection. Under the modified manifest system, EES becomes the generator of the waste.

The off-site pre-acceptance criteria for ethylene glycol is by means of visual and sensory inspection. If the ethylene glycol is straight ethylene glycol, meaning that there is no contamination, then it is pumped into the truck for transport to Evergreen. If the ethylene glycol is contaminated, the load is rejected. A milkrun operation is used to collect the ethlyene glycol. By using the milkrun operation, EES becomes the generator of the waste.

Wastes transported to Evergreen are tested again prior to unloading. A representative sample of the waste is taken and delivered to Evergreen's on-site laboratory for analysis. Waste oil is analyzed for flash point, water and chlorine content. Ethylene glycol is tested for gravity, water and chlorine content. (Evergreen's laboratory is in the process of obtaining a certification from the California Environmental Laboratory Accreditation Program). When waste oil passes Evergreen's acceptance criteria, it is transferred to a feed tank that supplies the refinery

operation. Ethylene glycol that passes the acceptance criteria remains in a tanker truck parked in the bobtail loading rack prior to off-site disposal. No treatment of ethylene glycol is conducted at Evergreen at this time. If the waste oil or ethylene glycol sample fails the acceptance criteria, then the entire load of waste is shipped off-site for disposal.

The objective of the waste oil recycling process is to remove the non-oil components from the lubricating oil and to further purify the lube oil fraction until it is comparable in appearance and specification to its virgin equivalent. This recycling process is accomplished through a series of filtering, mixing, distillation, hydrofinishing, and fractionation steps. The products generated from the recycling process include the following:

Diesel fuel: sold as fuel for industrial burners

<u>Lube distillate</u>: a fraction from used lube oil that is sold as a fuel to industrial burners. The lube distillate is further refined to produce two grades of marketable lube oil and an asphalt flux.

100 neutral lube oil: lube oil grade used for transmission fluid.

300 neutral lube oil: lube oil grade valued as hydraulic fluid.

Asphalt flux: the heaviest constituents of lube oil including additives and polymers used in the manufacture of asphalt roofing materials.

2.3 Hazardous Waste Management

Evergreen's Hazardous Waste Facility Permit allows waste oil and mixed oil (California Waste Code 221) to be stored and treated at its facility. Acceptance of ethylene glycol (California Waste Code 134) for treatment and storage was also permitted under a variance issued by DTSC. In Evergreen's Part B Application dated January 1992, it requested to accept additional waste streams. These waste streams include oil/water separation sludge (California Waste Code 222); unspecified oil-containing waste (California Waste Code 223); tank bottom waste (California Waste Code 241); and unspecified sludge waste (California Waste Code 491).

Other wastes generated through Evergreen's operation include wastewater (California Waste Code 135); spent catalyst (California Waste Code 162); and waste oil contaminated debris (California Waste Code 223).

During the 1991/1992 fiscal year (October 1991 through September 1992), Evergreen processed 11,321,563 gallons of waste oil through the refinery. From that volume, 6,155,544 gallons of lubricating oil, 2,001,891 gallons of asphalt flux, and 1,469,181 gallons of distillate were produced.

2.4 Permit Status

A California State Hazardous Waste Facility Permit was issued to Evergreen on October 10, 1985, allowing Evergreen to treat and store waste oil. The permit expired on October 10, 1990. At the time the permit was issued, Evergreen had not begun construction of the facility. On September 18, 1986, DHS (now called Cal/EPA) authorized Evergreen to proceed with the start-up of its operation. On July 15, 1988, DHS granted Evergreen a variance to treat and store ethylene glycol. This variance was renewed on September 19, 1990. In December 1990, Evergreen submitted a Part A and Part B Application for permit renewal to DTSC. Evergreen was authorized to operate under the terms of the previous permit until a permit determination is made on the renewal. A review of the renewal application was found to be incomplete; therefore, a Notice of Deficiency (NOD) was issued on June 11, 1991. On June 24, 1991, DTSC issued Evergreen a variance to raise the treatment capacity of waste oil from 17 gallons per minute (gpm) to 30 gpm. A revised Part B Application in response to DTSC's NOD was submitted in January 1992 by Evergreen. The revised application also contained the following modifications to its facility:

- o Acceptance of five additional types of waste
- o Increase treatment capacity of waste oils to 41 gallons per minute or 60,000 gallons per day
- o Utilization of six additional storage tanks and additional process equipment
- o Construction of an ethylene glycol recovery unit
- o Construction of a railcar and a truck loading/unloading rack
- o Utilization of a transportable compactor to compact oily debris

A NOD was issued in December 1992 on the January 1992 Part B Application. DTSC is currently working with U.S. EPA to determine whether Evergreen is a RCRA or non-RCRA facility. Since the facility accepts and treats waste oil containing halogens greater than 1000 ppm and that fuel oil is generated as one of the end products, DTSC believes that Evergreen's treatment process may not fall under the recycling exemption defined in 40 CFR Section 261.6 (a)(3)(iii).

2.5 Enforcement Status

Three inspections were conducted at Evergreen by DTSC since the issuance of the Hazardous Waste Facility Permit. In June 1987, Evergreen was cited for failure to properly label containers of hazardous wastes. In March 1990, DTSC's inspection of Evergreen revealed several violations. They included insufficient labelling and unsafe handling of drums, inadequate job training, inadequate aisle space, inaccessibility to emergency alarms, failure to conduct weekly inspections, failure to minimize the releases of hazardous wastes, and failure to adjust the

closure cost estimates. The February 1992 inspection also revealed similar violations. They included inadequate labelling of drums, open containers, unlabelled drums, inadequate aisle space, and failure to minimize the releases of hazardous wastes. On July 8, 1992, an enforcement order was issued for the violations cited from the March 1990 and February 1992 inspections.

U.S. EPA has also conducted an inspection at Evergreen in June 1991. Evergreen was cited for failure to maintain copies of Land Disposal Restriction waste certification/notification forms, poor housekeeping practices, and unmarked open containers of oil and oily debris. The June 1991 inspection was conducted as a result of a revised Part A filed by Evergreen for interim status under the Toxicity Characteristic rule. Based on file reviews and inspection, U.S. EPA determined that Evergreen was not eligible for interim status.

2.6 Site Location and Features

Evergreen is located at 6880 Smith Avenue in the City of Newark, Alameda County, California at latitude 37°31'045" and longitude 122°01'000" (See Figure 1). The facility operates on seven acres of land zoned for general industrial use.

The site is occupied by an office building, warehouse, truck loading/unloading area, tank farm, container storage area, process area, laboratory, control room, oily water separators, and a nitrogen and hydrogen storage area (See Figure 2).

Evergreen has approximately 58 employees of which a maximum of 30 people are on site at any one time.

The entire facility is surrounded by a manproof chain-link fence that is 6'-0" high with barbed wire on top. Access is available only through two vehicle gates and one personnel gate. The gates are only opened between the hours of 7 am and 6 pm.

3.0 ENVIRONMENTAL SETTINGS

3.1 Surrounding Areas

Evergreen is located at 6880 Smith Avenue in the City of Newark, California. Smith Avenue is a dead-end street with the flood channel located near the south end. Land to the north of the facility is a manufacturing plant operated by W.R. Grace. The west side of the facility is bounded by Southern Pacific Railroad tracks. A large commercial warehouse with a variety of tenants is located south of Evergreen and to the east is a truck transport company, operated by Motor Cargo.

Schilling Elementary School and James Bunker School are located nearby. One mile northwest are the Newark Senior Citizens Center and the Newark Christian Nursery School.

Leslie Salt Corporation maintains salt evaporation ponds 900 feet to the west of Evergreen. The ponds are used in the manufacture of salt for human and animal consumption. The San Francisco National Wildlife Refuge is located approximately four miles northwest of Evergreen, and the Hetch Hetchy aqueduct is located nearby. One mile north is the Nimitz Freeway.

3.2 Groundwater

Evergreen lies within the Niles Cone subarea of the South Bay Groundwater Basin. The principal water-bearing formation is the Quartenary Alluvium. The three uppermost substantial aquifers in the Niles Cone subarea are the Newark, Centerville, and Fremont aquifers. The Newark aquifer is an extensive gravel layer lying between 60 and 140 feet below ground surface (BGS). The Centerville aquifer is encountered from approximately 180 feet BGS to 200 feet BGS; the Fremont aquifer is encountered from approximately 310 feet BGS to 340 BGS. All of these aquifers are separated by interbedded clay layers of low permeability. Overlying the Newark aquifer is the Newark aquitard, which significantly impedes downward movement of groundwater to the underlying aquifers. There are no known discontinuities of the Newark aquitard within 2 miles of the site.

The Newark aquifer is the main conductor of salt water eastward from the San Francisco Bay, which is located approximately 3 miles to the southwest of the site. The Alameda County Water District is proposing to use its Newark aquifer wells, one of which is located on the Evergreen facility, to extract it and pump it back to the San Francisco Bay. This will prevent salt water from flowing into the Newark aquifer at times of low head.

3.3 Surface Water

The land surrounding the site is primarily industrial to the east, west, and north, and salt water evaporation ponds to the south. The site is covered with buildings or with extensive paved process areas; however, a portion of the property around the perimeter of the tank farm and refinery is unpaved. The 1-year, 24-hour rainfall at the site is 2.0 inches. The site is located above the 500-year flood plain and has a minimal flood potential (Figure 3). The channel located at the southern border of the site can contain the runoff from the 100-year storm. There are no known drinking water or irrigation intakes for this channel, Mowry Slough, or San Francisco Bay.

Along the eastern side of Smith Avenue is an Alameda County Flood Control channel that connects the adjacent salt water evaporation ponds, operated by Leslie Salt Company, with Mowry Slough approximately one mile downstream. Mowry Slough meanders to the west until it reaches San Francisco Bay, approximately seven miles downstream from Evergreen. Mowry Slough is part of the San Francisco Bay National Wildlife Refuge and is used for light recreational fishing. Mowry Slough supports sensitive aquatic habitats, including pupping areas for harbor seals and habitat for federally endangered species, including California clapper rails (Rallus longirostris obsoletus) and California brown pelicans (Pelecanus occidentalis californicus). The area around Mowry Slough also supports a federally endangered terrestrial species, the salt marsh harvest mouse (Reithrodontomys raviventris). All three of these species have been sighted in the Mowry Slough area.

3.4 Wind Rose

The prevailing wind direction throughout the year is from the west (See Figure 5).

3.5 Temperature

The mean annual temperature in the City of Newark is 59° fahrenheit.

3.6 Precipitation

(

The mean annual precipitation is 13.74 inches.

4.0 DESCRIPTIONS OF SOLID WASTE MANAGEMENT UNITS

Distinct Solid Waste Management Units (SWMUs) have been identified to evaluate potential onsite sources of releases to air, surface water, subsurface gas, groundwater, and soil. A SWMU is defined as any discernible waste management unit at a facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous waste.

Eight units have been identified as SWMUs. They are described individually on the following pages. Descriptions of SWMUs include: date of start-up; date of closure; waste management; release controls; history of releases; results of visual site inspection; and conclusions regarding potential for soil and/or groundwater, surface water, air and subsurface gas releases.

4.1 SWMU NO. 1: Tank Farm

Description of Unit:

The tank farm is 28,700 square feet in size with an exterior 2.75 foot concrete dike. The tank farm is further divided into eleven cells. Each cell is separated by a 1'6" high concrete containment wall. There are a total of 24 tanks in the tank farm. Waste oil, wastewater and re-refined products are stored in these tanks. Of the 24 tanks, 13 tanks currently store hazardous wastes. Seven of these hazardous waste tanks are located on the northern side of the tank farm; four of the tanks are located in the center of the tank farm; and the other two tanks are on the southern end of the farm. Waste oils and wastewater are stored in tanks T-501A, T-501B, T-501C, T-501D, T-502, T-503A, T-503B, T-505, T-507, T-509, T-512A, T-512B, and T-652 prior to processing. The tanks range in size from 10,000 to 200,000 gallons and are constructed of carbon steel material. See Table I for a complete description of the tank systems and Figure 4 for the location of the tanks.

A 1,200-gallon fiberglass sump (X-508) with a cover and high level alarm is also located in the tank farm. The sump is in the north west corner of the tank farm. The sump, measuring 5' x 8' x 4' high, is placed inside a concrete secondary containment. The containment has a total capacity of 7,950 gallons. No protective coating is provided for the containment. Underground drain lines run embedded in sand and connect the tank farm to the sump. These underground drain lines are made of cast iron and non-friable asbestos and have secondary containment consisting of high density polyethylene type lining that is impermeable to oil. Detection of any leakage of the underground piping system is provided by visual monitoring wells. The tank overflow pipes drain directly to sump X-508. Liquid collected in the sump is pumped back into the waste oil tanks for recycling.

Catch basins are present in the tank farm in addition to sump X-508. The catch basins are connected via underground non-friable asbestos cement sewer lines to a common sewer header from the tank farm. The sewer outlets are equipped with gate valves that are normally kept closed unless stormwater is being drained off for treatment in the storm oily water separator X-454 (SWMU #2).

A roof is not provided for the tank farm nor is chemical resistant coating provided for the secondary containment.

Evergreen proposes to install six additional above-ground storage tanks in the tank farm. Three out of these six tanks will be used to handle hazardous wastes.

Date of Start-Up:

The tank farm began operation in 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

Waste oil is transferred from tanker trucks to the storage tanks prior to processing. The waste is stored in the tanks for no longer than 30 days from the date of receipt.

Release Controls:

The tank farm is surrounded by an approximately 2.75 feet concrete wall. The secondary containment in the tank farm is designed to contain 200,000 gallons plus the precipitation from a 25-year, 24-hour storm event. Furthermore, the tank farm is equipped with an underground drainage system for handling precipitation collected within the tank farm. All underground lines have secondary containment consisting of oil-resistant polyethylene. The runoff collected in the drain lines flows via gravity to the 7,950 gallon sump (X-508) where it is eventually processed in the oily water separator.

History of Releases:

Tank-511A, containing asphalt flux, ignited and exploded in October 1986. The fire was extingushed by the Newark Fire Department. See Appendix A for additional information regarding the incident.

Results of Visual Site Inspection:

Rainwater had accumulated in many of the cells of the tank farm. In cells containing hazardous wastes tanks T-503A and T-504B, rainwater was estimated to be about a foot deep (See photos #9 and #10). Therefore, visual inspection of the containment floor was not feasible.

However, the containment area on the western section of the tank farm was accessible (See photos #3 and #5). Inspection of this area of the tank farm revealed the presence of cracks (See photo #6). It is not known if some of the cracks on the floor extend to the bottom of the tanks. A layer of oily liquid sat in the northwestern corner of the tank farm (See photo #7). Evergreen stated that the containment floor is sloped to this corner; therefore, oily residues on the floor and

rainwater were drained to this corner. This area was quite hazardous to walk on because of the oil slick.

Liquid in the secondary containment of the tank farm sump X-508 was observed (See photo #8). Evergreen stated that the liquid is rainwater. Since this unit is underground, inspection for cracks and stains of the unit and its secondary containment was not possible.

Conclusions

Soil/Groundwater Release Potential:

There is a medium potential for releases to soil and/or groundwater because of the cracks and stains present in many areas of the tank farm. Furthermore, since no chemical resistant coating is provided for the secondary containment, the potential for spills to seep through the cracks is high.

Surface Water Release Potential:

There is a medium potential for releases to surface water since cracks and gaps are present in the secondary containment. The lack of a continuous base in the containment system does not provide an adequate containment for releases.

Air Release Potential:

The potential for past and/or on-going air releases is low because the tanks are fully enclosed units.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.2 SMWU No. 2: Oily Water Separators

Description of Unit:

The oily water separators are located southwest of the Tank Farm. One oily water separator is named X-453 or the sanitary sewer oily water separator. The other is named X-454 or the storm oily water separator.

The X-453 separator, with a design flow rate of 30 gpm and an operating capacity of 1,240 gallons, is a custom enhanced gravity separator. The dimensions are 12' long x 4' wide x 4'9" high.

The X-454 separator, with a design flow rate of 400 gpm and an operating capacity of 3,000 gallons, is a vertical tube coalescing separator. The dimensions are 10'6" long x 9'4" wide x 6'6" high. X-454 is connected to all of the stormwater drains in the tank farm and process area. These drains are kept closed from X-454 and are opened only to drain rainwater.

The outside walls and floor of both separators are molded, sandwich construction consisting of balsa wood core and fiberglass-reinforced skins. The internal components consist of baffles, troughs, and weir walls that are molded fiberglass-reinforced laminate. The entire exposed external surface is covered with a continuous layer of chemically resistant, ultraviolet stabilized white polyester gelcoat. Both of the separators are strapped down to a concrete pad within the containment area.

The two separators are surrounded by a single concrete secondary containment. This containment area is 16'6" x 16' x 13'. No protective coating is provided for the containment.

Date of Start Up:

The oily water separators began operation in September 1986.

Date of Closure:

Both of the oily water separators are currently in use.

Waste Management:

Wash down water from the bobtail and truck loading/unloading racks and any releases are directed to X-453 for treatment. The oil from the wastewater is skimed off the top of the water. The skimmed oil is pumped to a tank for storage until it is ready to be processed. The water

portion is pumped to a water treatment tank for further treatment.

X-454 is used to remove oil and grease from stormwater prior to discharging it to the storm water system.

Release Controls:

The oily water separators are located inside a concrete vault which provides the necessary secondary containment.

History of Releases:

There is no documented release from this unit.

Results of Visual Site Inspection:

The oily water separators are below ground units and surrounded by a containment wall (See photos #11 and #12). Both of the oily water separators are situated in the same secondary containment area. Since these units are below ground, inspection for cracks and stains of the units and the secondary containment was not possible.

Conclusions

Soil/Groundwater Release Potential:

The potential for releases to soil and/or groundwater is unknown. Since this unit is underground, inspection for cracks and stains of the unit was not conducted.

Surface Water Release Potential:

There is a low potential for releases to surface water since the unit is located inside the containment area.

Air Release Potential:

There is a low potential for releases to air since the oily waste separators have closed tops and are fully enclosed.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

SWMU No. 3: Process Area

Description of Unit:

The process area, measuring approximately 12,500 square feet in size, is located south of the tank farm (See photo #13). Waste oil stored in the tank farm is piped to this area for processing. The treatment of hazardous waste oil to non-hazardous waste oil utilizes five major vessels.

Date of Start Up:

This unit began operation in October 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

There are essentially five major vessels involved in the treatment of hazardous waste oil to non-hazardous waste oil (See Appendix B). The method of treatment and the vessels used are as follows:

Waste oil is contained in hold-up vessel V-100 where a proprietary chemical is added to prevent sludge formation and corrosion. The next step involves dewatering the waste oil in vessel V-101. The dewatering process removes the water and other light boiling contaminants from the oil. The water is treated on-site and the light boiling contaminants are used as fuel to generate process heat for the remainder of the recycling process. The dewatered feed is transferred to closed vessel, C-101, where the oil is heated to remove fuels from the used oil. The distillate fuel vapor is condensed, cooled, and transferred to a storage tank for sale as an industrial distillate. The lubricating oil portion is then recovered through a vacuum distillation column, C-201, and in a thin film evaporation unit X-201. Some of the feed that did not evaporate is recovered for sale as an asphaltic flux material. The lube oil is no longer hazardous after the recovery step. However, further polishing and fractionation is performed to enhance the oil prior to sale of the product.

History of Releases:

(

There is no documented release from this unit.

Release Controls:

The entire process area is built upon a concrete slab that is at least six inches thick. An eight inch high curb gives enough containment for a spill from the largest vessel plus the rain from a 24-hour 25 year storm.

Furthermore, there are seven floor drains found in the process area. These drains are either directed to a 21,000 gallon containment vault (SWMU #7) or to oily water separator X-454 (SWMU #2). An automatic valve which can be activated from the control room switches the flow from the vault to X-454 and visa versa. Wash water is directed to the vault and stormwater is directed to X-454.

The process area is equipped with sensors and alarms to prevent overflow of vessels, overheating, and overpressurization. Extensive fire fighting equipment is also available in this area.

Results of Visual Site Inspection:

Stains and cracks were very evident in many areas of the process area (See photos #14, #15, #20, and #21). In one particular area, it appeared that a strong chemical had spilled and eaten the concrete block and floor (See photos #16 and #17). In another area, an oil-like material was observed leaking from a pump (See photos #18 and #19). Evergreen stated that the pump was packed earlier that morning; therefore, the leak resulted.

Conclusions

Soil/Groundwater Release Potential:

There is a high potential for releases to soil and/or groundwater because of the cracks and gaps present in many areas of the process area. Furthermore, since no chemical resistant coating is provided for the secondary containment, the potential for spills to seep through the cracks is high. At the time of the VSI, the containment floor did not appear to be well maintained. This factor may also increase the potential for accidents to occur.

Surface Water Release Potential:

There is a medium potential for releases to surface water since cracks and gaps are present in the secondary containment. The lack of a continuous base in the containment system does not provide an adequate containment for releases.

Air Release Potential:

Treatment of hazardous waste oils is conducted in tank systems that are fully enclosed; therefore, the potential for air releases is low.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.4 **SWMU No. 4: Container Storage Area**

Description of Unit:

The container storage area is located in the northeast portion of the tank farm (See photos #22 and #23). It is one of the eleven cells discussed in SWMU #1. The approximate size of this storage unit is 900 square feet with an exterior berm height of 3 feet. The interior berm walls which separate adjacent cells are 1'6" high. A roof is not provided for this area nor is chemical resistant coating provided for the secondary containment.

The container storage area, like the tank farm, has catch basins and sump X-508 are available to contain stormwater and releases.

Used oil contaminated debris and spent catalyst are stored on pallets in the container storage area.

Date of Start-Up:

The container storage area began operating in September 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

Full drums of hazardous waste are transported to the container storage area by the use of a forklift. These drums are stored for 90 days prior to off-site disposal. Approximately 300 drums are generated on an annual basis. The drums are shipped quarterly to Kettleman Hills for landfill disposal.

Release Controls:

The container storage area is surrounded by a three foot exterior concrete wall. The inner containment walls that separate the tank farm from the container storage area are 1'6" high. Furthermore, the container storage area, like the rest of the tank farm, is equipped with an underground drain system for handling precipitation collected within the area. All underground lines have secondary containment consisting of oil-resistant polyethylene. The runoff collected in the drain lines flows via gravity to the 7,950 gallon sump (X-508) where it eventually is processed in the oily water separator. Catch basins are also available. These catch basins are

kept closed at all times except when they are manually opened to drain off rainwater.

History of Releases:

There is no documented release from this unit.

Results of Visual Site Inspection:

Aisle space was not adequately provided for the container storage area. On one side of the storage area, containers were clustered together so that one could not walk through rows of containers. An open paint can containing what Evergreen stated to be lube oil was observed (See photo #26). Some of the oil had spilled onto the containment floor. Cracks were present (See photo #24), particularly around the sump in the northern section of the container storage area where the cracks were quite extensive (See photo #25). Sheens of oil were also noted around the sump.

Conclusions

Soil/Groundwater Release Potential:

There is a medium potential for past and/or on-going releases to soil and groundwater. The conclusion is supported by the fact that cracks are very evident throughout the container storage area and especially around the sump. Oily stains were visible in one area of the container storage area. Furthermore, the Department had cited Evergreen in the Feb 1992 inspection for not maintaining and operating the container storage area to minimize the possibility of the release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

Surface Water Release Potential:

There is a medium potential for releases to surface water since cracks and gaps are present in the secondary containment. The lack of a continuous base in the containment system does not provide an adequate containment for releases.

Air Release Potential:

No transferring operations are conducted in this unit. All containers are kept closed at all times. Therefore, the potential for releases to the air is low.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.5 SWMU No. 5: Truck Loading/Unloading Area

Description of Unit:

The truck loading/unloading area includes two truck racks. The bobtail rack is used by smaller oil collection trucks to unload used oil into the tank farm. The bobtail rack is a sloped slab of concrete which is 92' by 30' and surrounded on three sides by a curb. The sloped concrete drains into a grate which is connected to the loading rack sump X-510.

The tanker truck rack is used by larger tanker trucks to unload used oil and to load finished products. The tanker truck rack consists of two 74' by 12' concrete loading bays which are separated by a 6' concrete island and surrounded on the three remaining sides by a curb. Both bays are equipped with a drain which also connects to the loading rack sump X-510.

The loading rack sump X-510 is a 900 gallon fiberglass sump with a cover, high level alarm, and an automatic pump. It is located south of the truck loading/unloading area (See photo #37). The sump, measuring 5' x 6' x 4' high, is placed inside a concrete secondary containment. The containment has a total capacity of 6,350 gallons. No protective coating is provided for the containment.

Date of Start Up:

The bobtail rack and the tanker truck rack began operation in September of 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

The bobtail rack is used to pump waste oil. This is also the area where spent anti-freeze is stored. The tanker truck rack is used to unload waste oil from tankers and also to load finished products for shipment.

Release Controls:

Both loading racks are provided with secondary containment to contain any spills or releases. A 900-gallon sump is also available for containment. If the sump were to overflow, a 21,000 gallon containment vault, located 10 feet west of the sump, is available for added protection (SWMU #8).

History of Releases:

There is no record of any reportable releases to the environment from this area except for minor accidental spills. These spills have all been routinely cleaned up with the use of spill clean-up equipment.

Results of Visual Site Inspection:

Tanker Truck Rack

Cracks were evident in the tanker truck rack area. Some cracks were filled but others were not (See photos #29 and #30). Cracks were also observed on the berm (See photo #28). Gaps present between the berm and the containment floor were noted (See photo #32).

Bobtail Loading Rack

Like the tanker truck rack, cracks were also present in the bobtail loading rack (See photo #36). There were a few areas where spills have occurred, but were not cleaned up (See photo #35). These spills were light brownish in color and appeared creamy like. Stains were also observed and they appeared to be orange in color and provided a glow to the ground (See photos #33 and #34).

Loading Rack Sump

There was liquid in the secondary containment of the loading rack sump. Evergreen stated that the liquid is rainwater. The lid to the sump was open and debris were seen on top of the oily wastewater (See photo #38). Since this unit is underground, inspection for cracks and stains of the unit and its secondary containment was not possible.

Conclusions

Soil/Groundwater Release Potential:

The potential for releases to soil and/or groundwater is high. There are many cracks and gaps present in both the bobtail and tanker truck rack areas. Some of the cracks were filled but others were not. Cracks were evident on the floors and berms. Stains and spills were also evident. The potential is compounded by the fact that the area is very poorly maintained.

Surface Water Release Potential:

There is a medium potential for releases to surface water since cracks and gaps are present in the secondary containment. The lack of a continuous base in the containment system does not provide an adequate containment for releases.

1

Air Release Potential:

The potential for air releases is low because waste oil is transferred from trucks to tanks via fixed pipelines and pumps.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.6 **SWMU No. 6: Filter Cleaning Area**

<u>Description of Unit</u>:

The unroofed filter wash area is a 12' by 12' area located west of the tank farm. A four foot concrete block wall surrounds this area with the exception of a two foot opening for the entry way. The area is sloped so that liquids can be drained into a drain located in the southern corner of the unit. The drain leads to the loading rack sump, X-510 (SWMU #5).

The filter cleaning area is used to wash metal filter baskets from tanker trucks that collect waste oils. The filter basket filters out large pieces of debris such as rocks, sticks, paper, and metal that may be mixed in with the waste oil.

Date of Start-Up:

The filter cleaning area has been in use since September 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

Dirty filters are removed from the trucks and are brought to the filter wash area for cleaning. The filters are placed on a metal rack attached to the top of a sheet metal bin. A steam hose is used to clean out the filters. The debris falls into the bin. Any free liquids, consisting of oil and water, in the bin are drained to the loading rack sump, X-510. The debris is then shoveled out of the bin and placed into a labelled 55-gallon drum. Absorbent material is added to the drum to solidify the debris. When the drum becomes full, it is transferred to the container storage area.

Release Controls:

A four foot concrete block wall surrounds this entire area. There is, however, a two foot break in the wall to provide entrance to this unit. Since the filter wash area is sloped, any spills from this entryway are drained into the interior drain which flows into sump X-510. The metal bin is provided with a lid which is to be in place except when waste is being added.

History of Releases:

There is no documented release from this unit.

Results of Visual Site Inspection:

To the left of the entryway of the filter cleaning area is a metal rack where filters are placed for cleaning. There was a lot of debris collected in the metal bin (See photo #41). Debris included soda can, cups, and shredded papers. The lid which is to be placed on top of the metal rack was no where to be seen. A drainage system is located in corner of the area (See photo #42). The system contained a dark murky liquid with a sheen of oil on top. The rainwater and oil masked the condition of the floor; therefore, cracks and stains, if present, were not discernible. Buckets and tools used to clean up the filters sat in another corner of the unit (See photo #40). Since no roof is provided for this unit, rainwater may have washed oily residues on the buckets and tools to the ground.

Conclusions

Soil/Groundwater Release Potential:

The potential for releases to soil and/or groundwater is unknown. Cracks were not discernible due to the presence of rainwater and oil that have masked the condition of the containment floor. However, if cracks are present then the potential for releases to soil and/or groundwater is medium.

Surface Water Potential:

There is a low potential for releases to surface water since secondary containment is adequately provided for this unit.

Air Release Potential:

Oil is non-volatile; therefore, the potential for air releases is low. Additionally, a lid covers the metal bin when it is not in use. However, the lid was not available at the time of the VSI.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.7 SWMU No. 7: Process Area Containment Vault

Description of Unit:

The containment vault for the process area is located underground north of the process area and 40 feet west of the control room. The concrete vault is 22' x 20' x 6'8" (22,000 gallons) with no protective liner provided.

Date of Start Up:

This unit has been in operation since September 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

Wash down water from the process area is directed into this vault. The oily wash water is then pumped to the water treatment tank for treatment. The vault also provides extra spill containment for the process area.

Release Controls:

The containment vault is maintained and inspected daily.

History of Releases:

There is no documented release from this unit.

Results of Visual Site Inspection:

Inspection of this unit was not conducted.

Conclusions

Soil/Groundwater Release Potential:

The potential for releases to soil and/or groundwater is unknown. Since this unit is underground, inspection for cracks and stains of the unit was not conducted.

Surface Water Release Potential:

There is low potential for releases to surface water since this unit is located underground.

Air Release Potential:

The potential for air releases is low because oily wastewater or wash water is non-volatile.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

4.8 SWMU No. 8: Loading/Unloading Area Containment Vault

Description of Unit:

A 21,000 gallon underground containment vault is located north of the tank farm and approximately 25 feet west of the bobtail loading rack (See photo #31). The concrete vault is 20'4" x 12'4" x 11'2" with no protective liner provided.

Date of Start Up:

This unit has been in operation since September 1986.

Date of Closure:

This unit is currently in use.

Waste Management:

The vault's purpose is to provide additional containment for the loading rack sump X-510 (SWMU #5). There have been occassions where sump X-510 overflowed into the vault. Otherwise, the vault is normally kept dry and clean.

Release Controls:

The vault is regularly inspected and maintained. The vault is kept clean and dry and is used to provide tertiary containment for the loading racks.

History of Releases:

There is no documented release from this unit.

Results of Visual Site Inspection:

Inspection of this unit was not conducted.

Conclusions

Soil/Groundwater Release Potential:

The potential for releases to soil and/or groundwater is unknown. Since this unit is underground,

inspection for cracks and stains of the unit was not conducted.

Surface Water Release Potential:

There is low potential for releases to surface water since this unit is located underground.

Air Release Potential:

The potential for air releases is low because the unit is enclosed. Furthermore, oily wastewater or wash water is non-volatile.

Subsurface Gas Release Potential:

This unit does not fall under one of the following areas of concern as specified in the EPA's RCRA Facility Assessment Guidance; an active or closed landfill or a unit which has been closed as a landfill. Therefore, the potential for release is considered low.

5.0 AREAS OF CONCERN

An Area of Concern (AOC) is defined as a unit which may not be a Solid Hazardous Waste Management Unit but the potential for releases of hazardous waste or hazardous constituent(s) exists.

Six units have been identified as AOCs. A description of each of unit is described individually on the following pages.

AOC No. 1: Laboratory - Accumulation Storage Area

The laboratory, located northwest of the process area, is a satellite accumulation storage area for oily wastes, spent acid, and mercury (See photos #43 and #44). Waste oil and spent acid are generated as a result of analyses of incoming wastes, outgoing products, and wastewater discharged to the POTW. The spent acid is stored in a 5-gallon plastic carboy on the floor of the laboratory under a work bench. Waste oil is accumulated in a 55-gallon drum. The drum, containing the waste oil, is emptied weekly into a waste oil tank to be recycled in the refinery. Mercury waste results from broken hydrometers and thermometers. These broken hydrometers and thermometers are disposed of in a lab pack.

AOC No. 2: Control Room - Accumulation Storage Area

The control room, located northwest of the process area, is an accumulation storage area for waste oil. Waste oil is accumulated in a 55-gallon drum with a lidded funnel on top. The oil is returned to the process at least once every two weeks.

AOC No. 3: Former Oil Filter Storage Areas

Several areas within the Evergreen facility were used to store oil filters. These areas included trailers, the bobtail loading rack, and an asphalt area by the scale located on the northwest part of the facility. Filters were stored in drums. Since 1992, the storage of filters have been moved to a warehouse in Union City.

AOC No. 4: Unpaved Area

Based on DTSC's inspections conducted in March 1990 and February 1992, an unpaved area which is approximately 3' x 3' near the bobtail rack (northwest of the tank farm) was found to contain oily stains in the soil. The soil had been stained with splashes of wash water that had been generated during steam cleaning of the bobtail rack.

In February 1992, an Evergreen employee, under the direction of a DTSC staff, collected two soil samples (0-6" of depth) from the stain. Co-located samples were also obtained and kept by the facility. The two soil samples were analyzed at the State laboratory for metals, total petroleum hydrocarbons (TPHs), and poly aromatic hydrocarbons (PAHs). With the exception of zinc that was found at 200 and 600 parts per million (ppm), concentrations of all metals were at or below laboratory detection limits. TPH values were reported at 850 and 550 ppm. PAHs were not detected. See Appendix C for the location of the samplings and the results of the analysis.

Evergreen has since removed the contaminated soil. Furthermore, Evergreen stated in a letter dated July 20, 1992 to DTSC that a temporary barrier is placed in the area during clean-ups to prevent splashing of oily water and that the area will be paved with concrete upon approval from DTSC (See Appendix D). In a letter from Ms. Jane Burns of Evergreen dated March 11, 1993, Ms. Burns stated that the unpaved area has been filled with concrete (See Appendix C1).

AOC No. 5: Odor Emissions

There have been numerous odor emission complaints filed by residents and nearby companies since Evergreen began its operations in 1986. According to the Bay Area Air Quality Management District (BAAQMD), 90% of the odor problem is water related and some are sulfur dioxide related (Appendix E). Complaints of odor emissions have declined due to the modifications made on the method of treatment of wastewater and the installation of odor abatement devices. From January 1, 1992 to December 31, 1992, 55 complaints were received by the BAAQMD. Of the 55 complaints, 8 were confirmed and 47 were unconfirmed.

AOC No. 6: Alameda County Flood Control Channel

On March 16, 1989, approximately 15-30 gallons of used oil was released into the Alameda County flood control channel (See Appendix F). The incident occurred after a very heavy rainstorm and a malfunctioning valve in Evergreen's water discharge line. Remedial action was immediately taken by Evergreen when they were notified of the incidence. Preventive measures were implemented where additional concrete and curbing was installed on the south side of the tank farm; a plumbers plug was installed on the final catch basin prior to discharge to the flood control channel; and a pump was installed at the retention pond to allow immediate pumping of water to a storage tank in case it is overwhelmed.

6.0 CONCLUSIONS

A RCRA Facility Assessment (RFA) was performed at Evergreen Oil, Inc. located at 6880 Smith Avenue in Newark, California. During the RFA, information on the Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) were gathered in order to determine if there were releases that warranted further investigation or other actions at the facility.

A total of eight SWMUs and six AOCs were identified. Some of these units are comprised of multiple individual structures such as tanks which have been grouped as a single SWMUs because of similarity of construction, waste managed, and release controls.

Release potentials of the SWMUs to the environmental media were evaluated and segregated into five categories based on potential for release: low potential, medium potential, high potential, documented, and unknown releases. A summary of release potential from these SWMUs is listed in Table II.

The overall impact of these identified SWMUs has on the environmental media at the 6880 Smith Avenue site is as follows:

Soil/Groundwater Releases

Based on the visual site inspection and file reviews, two SWMUs (tank farm and container storage area) have been identified to have a medium release potential to the soil and groundwater; two SWMUs (process area and truck loading/unloading area) have been identified to have a high release potential; and the potential for releases to the soil and groundwater from four SWMUs (oily water separators, filter cleaning area, process containment vault, and the loading/unloading area containment vault) has been identified to be unknown.

The conclusion for the medium and high release potential was based on the fact that cracks, gaps and stains were found in the containment of these areas. An acceptable containment system should always be free of cracks and gaps and should be impervious to spills and leaks. Poor housekeeping (e.g., not removing a spill or leaked waste as soon as it is discovered) increases the chance for accidents to occur and for the waste to seep through the cracks and gaps. To prevent possible releases to the soil and groundwater, improvements to these units need to be made.

The four SWMUs were identified to have an unknown release potential based on the fact that the condition of their containment is unknown. Most of these units are underground units and therefore they were not inspected.

Surface Water Releases

There was one documented off-site release to surface water from AOC #6 in which 15-30 gallons of used oil was released into the Alameda County flood control channel. Remedial action was taken at the time of the incident and preventive measures have since been implemented to prevent future occurences.

Since gaps and cracks were found in the containment area of the tank farm, process area, container storage area and truck loading/unloading area, these areas were determined to have a medium impact to surface water. A release may have the potential to migrate through the gaps in the containment system and into nearby surface water.

All other SWMUs identified in this report either have adequate secondary containment or that no off-site releases to surface water has been documented; therefore, the potential for releases to surface water from these SWMUs were concluded to be low.

Air Releases

The oily water separators, storage tanks, and process equipment are regulated by BAAQMD (See Appendix G). BAAQMD requires Evergreen to meet all emission standards. Therefore, there is little potential for releases to the environment.

Subsurface Gas Releases

There is little potential for subsurface gas releases at Evergreen. Furthermore, there are no documented subsurface releases at Evergreen.

TABLE II
SUMMARY OF RELEASE POTENTIAL FROM SWMUS

Unit	Soil and Groundwater	Surface Water	Air	Subsurface Gas
SWMU #1	Medium	Medium	Low	Low
SWMU #2	Unknown	Low	Low	Low
SWMU #3	High	Medium	Low	Low
SWMU #4	Medium	Medium	Low	Low
SWMU #5	High	Medium	Low	Low
SWMU #6	Unknown	Low	Low	Low
SWMU #7	Unknown	Low	Low	Low
SWMU #8	Unknown	Low	Low	Low

7.0 RECOMMENDATIONS

As a result of the assessment, the following recommendations are made on the SWMUs identified in this report:

- 1. 4 out of the 8 SWMUs were identified to have inadequate secondary containment. These SWMUs include the tank farm (SWMU #1), process area (SWMU #3), container storage area (SWMU #4), and truck loading/unloading area (SWMU #5). It is recommended that improvement to secondary containment areas be made. Improvements in these areas should include refurbishing the entire containment by resealing gaps, filling in cracks on the concrete pad and any cracks connecting the pad to the berm. The concrete pad must be impervious to spills and leaks of the waste managed in that unit. Therefore, a chemical resistant coating compatible with the waste managed must be provided to seal the concrete. Prior to the coating of the containment areas, cracks found in the containment floor must be identified by indicating the size and location of those cracks. Photographs of the cracks should also be taken. Furthermore, it is recommended that a soil sampling plan be prepared to determine if contamination has occurred in these SWMUs.
- 2. In areas where the soil and groundwater release potentials are unknown (oily water separators, filter cleaning area, process area containment vault, and the loading/unloading area containment vault), it is recommended that further investigation be conducted on the integrity of the secondary containment. If the investigation shows that the containment is free of cracks and gaps, then the containment should also be coated so that it will be impervious to spills and leaks. Cracks and gaps found in the containment must be filled prior to the coating. Since the tank farm sump (X-508) and the loading rack sump (X-510) are underground units and were not inspected, the integrity of these secondary containments should also be investigated.
- 3. The deteriorated concrete block and floor in the process area as shown in photos #16 and #17 need to be investigated for possible contamination to the soil and groundwater. Additional information is needed to determine what was released, the volume, and the extent of the release. Furthermore, it is recommended that soil samples be taken to determine if there is contamination.
- 4. The metal bin in the filter cleaning area should be lidded when not in use to prevent debris from entering the unit. This will minimize the volume of wastes generated. Additionally, the buckets and equipment used to clean the filters should be placed in a container, preventing oily residues left on these items from washing onto the ground.

- 5. Roofing should be provided for the container storage area to reduce the deterioration of drums.
- 6. The covers to the sumps should remain closed at all times to prevent debris and rainwater from entering the units.
- 7. Evergreen should improve its housekeeping activities so that the chances for accidents to occur (e.g., spills and leaks) will be minimized.

8.0 VISUAL SITE INSPECTION

A visual site inspection (VSI) was conducted at Evergreen Oil, Inc. located at 6880 Smith Avenue in Newark.

On December 7, 1992, Daisy Lee of DTSC arrived at Evergreen at about 9 am and met with the Environmental Manager, Jane Burns. The inspection commenced immediately after Ms. Lee's arrival. The weather was cold with temperature in the 50's. It had rained the night before, so the facility was very wet at the time of the inspection. Furthermore, it drizzled a few times during the inspection.

SWMUs and AOCs identified in Evergreen's RFA Questionnaire, as well as potential units noted during the visit, were inspected and photographed. The VSI ended at approximately 11:00 am. Issues regarding the facility's Part B application were addressed by Ms. Burns after the VSI.

9.0 REFERENCES

- 1. <u>Letter from Evergreen to DHS</u>, regarding tank explosion on October 26, 1986 Dated October 29, 1986
- 2. <u>DTSC Inspection Report</u>, prepared by Susan Gladstone Dated August 3, 1987
- 3. <u>Letter from Evergreen to Newark Fire Department</u>, regarding oil spill on March 16, 1989

 Dated April 4, 1989

1

- 4. <u>DTSC Inspection Report</u>, prepared by Gregory Grunner Dated April 20, 1990
- 5. <u>U.S. EPA Inspection Report</u>, prepared by Patrick Kuefler Dated July 11, 1991
- 6. Evergreen Oil, Inc.'s Part B Application
 Dated January 5, 1992
- Environmental Priorities Initiative Preliminary Assessment, prepared by Ecology and Environmental, Inc.
 Dated March 26, 1992
- 8. <u>DTSC Inspection Report</u>, prepared by Vajie Motiafard Dated April 2, 1992
- Letter from Evergreen to DTSC, regarding certification of compliance Dated July 20, 1992
- 10. <u>Fax from Evergreen to DTSC</u>, regarding RFA information Dated January 11, 1993
- 11. <u>Fax from Evergreen to DTSC</u>, regarding additional RFA information Dated February 15, 1993
- 12. <u>Letter from Evergreen to DTSC</u>, regarding February 1992 inspection Dated March 11, 1993

13. <u>Summary of Incidents at Evergreen Oil, Inc.</u>, prepared by the Newark Fire Department No date

TABLE I TANK SYSTEM DESCRIPTION

TANK SYSTEM DESCRIPTION

Tank	Description	Diameter	Height	Capacity	Shell	Corrosion	Material	Structural	Contents	Feed	Waste Feed	Pressure	Other
Number	Везепросп				-	Allowance	of Construction	Supports			Cut-off	Controls	Features
T~501A	Bobtail Preselection	11'-11"	12'-0"	10,000 gal.	3/16"	1/8"	A36	Mounted on 6" concrete pad above grade	Watse Lube Oil		Overfill drain to x-508	Vent to Atmosphere	LI, LAH
T-501B	Bobtail Preselection	11'-11"	12'-0"	10,000 gal.	3/16"	1/8"	A-36	"	Waste Lube Oil	Top loaded		*	
T-501C	Bobtail Preselection	11'-11"	12'-0"	10,000 gal.	3/18"	1/8"	A-36	"	Waste Lube Oil /	Top loaded			
T501D	Transport Truck Preselection	13'-6"	24'-0"	25,000 gai.	3/16"	1/8"	A-283-C	"	Waste Lube Oil 3	Top loaded	•		
T502	Product Mixing	20'-8"	500	50,000 gal.	3/16"	1/8"	A-283-C	"	Lube Oil	Top loaded	High Level Spill to Dike	PSV +1 W.C. Vap. Recovery	Carbon Filter LI
T-503A	Used Oil Feedstock	33'-8''	300.,	200,000 gail	4 Rings: 1 = 1/4" 2 - 205" 3 - 3/16" 4 - 3/16"	1/8"	4 Rings: 1 - A-36 2 - A-516-70 3 - A-36 4 - A-283C		Waste Lube Oil	Top loaded	No Drain	Vent to Atmosphere	u
T-503B	Used Oil Feedstock	33'-8"	30'-0"	200,000 ga		1/8"	"		Watse Lube Oil	Top loaded	Drain to x-508		u, n
T-504	Lube Distallate Tank	20'-8"	20'-0"	50,000 gal.	3/16"	1/8"	A-283-C		Lube Distallate	Top loaded	Spill to x-508	"	LI
T-505	SB-86 Fuel Lube Oil	20'-8"	20'-0"	50,000 gal.	3/16"	1/8"	A-283-C	11	SB - 86 Fuel	Top loaded	,	Vent to Atm. Vapor Recover	LI, Ti
T-506A	Base Oil Tank	20'-8"	500	50,000 gal.	3/16"	1/8"	A-283-C	**	Lube Oil	Top loaded	"	Vent to Atm.	LI
T-506B	Base Oil Tank	20'-8"	20'-0'	50,000 gal.	3/16"	1/8"	A-283-C	**	Lube Oil	Top loaded	- "	"	LI, TI
T-506C	Base Oil Tank	20'-8"	200.,	50,000 gal.	3/16"	1/8"	A-283-C		Lube Oil	Top loaded		"	LI, TI
T-5060	Base Oil Tank	20'-8''	200	50,000 gal.	3/16"	1/8"	A-283-C		Lube Oil	Top loaded		**	Ц
-507	SB-86 Fuel	208.,	50,-0	50,000 gal.	3/16"	1/8"	A-283-C		S8 - 86 Fuel	Bottom Loaded	Spilt to Dike	+1.0 WC, Vap. Recovery	LI, LAH, Access to N2 Blanket
T-508	Base Oil Tank	20'-8"	200.	50,000 gal.	3/16"	1/8"	A-283-C		Lube Oil	Top loaded	Spill to x-508	Vent to Atm.	Li, Ti
T-509	Light Tank	13'-6"	24'-0"	25,000 gal.	3/16"	1/8"	A-283-C		Lube Oil	Top loaded	Spill to Dike	,.	Lì
T-510	SB-86 Fuel	13'-8"	24'-0"	25,000 gai.	3/16"	1/8"	A-283-C		S8 - 86 Fuel	Bottom Loaded	Spill to Dike	+1.0 WC, Vap. Recovery	LI, LAH, Access to N2 Blanket
T-511Ā	Asphalt Flux Tank	15'-6"	25'-0"	35,000 gal.	1/4", 3/16"	1/8"	A-283-C		Asphalt Flux	Bottom Loaded	Spill to x - 508	+1.0 WC, Vap. Recovery	LI, LAH, Access to N2 Blanket
T-5118	Process Water from V-651	15'-6''	25'-0"	35,000 gal.	1/4", 3/16"	1/8"	A-283-C		Waste Water	Bottom Loaded	Spill to x - 508	7	
T-512A	DAF Effluent Water	11'-11"	12'-0"	10,000 gal.	3/16"	1/8"	A-36		Waste Water	Top loaded	Spill to x - 508	Vent to Atm. Vapor Recover	Li, LAH
T-512B	Phenol Oxidation	11'-11"	12'-0"	10,000 gal.	3/16"	1/8"	A-36		Waste Water after CIO2 Treatment	Top loaded	Spill to x-508	Vapor Recover	LI, LAH
T-651A	Washdown Water	13'-6"	24'-0"	35,000 gal.	3/16"	1/8"	A-283-C	"	Waste Water	Top loaded	Spill to x-508	-	LI
T-651B	Offsite H2O Disposal	13'-6"	24'-0"	35,000 gal.	3/16"	1/8"	A-283-C		Waste Water /	Top loaded	Spill to x-508	"	Li
T-652	Misc. Water Tank	11'-11"	12'-0"	10,000 gal.	3/16"	1/8"	A-36	- "	Waste Water	Top loaded	Spill to x-508	1.	u

EXPLANATION OF ABREVIATIONS LI - Level Indicator LAH - Level Alarm High TI - Temperature Indicator X-508 - Tank Farm Sump

							PROPOSED TA	NK SYSTEM (DESCRIPTION				
fank Number	Description	Diameter	Height	Capacity	Shell Thickness	Corrosion Allowance		Structural Supports	Contents		Waste Feed Cut – off	Pressure Controls	Other Features
?	Used Oil Feedstock	33'-8"	300	200,000 gal.	4 Rings: 1 - 1/4" 2 - 205" 3 - 3/16" 4 - 3/16"	1/6"	4 Rings: 1 - A-36 2 - A-516-70 3 - A-36 4 - A-283C	6" concrete	Waste Lube Oil	Top loaded	No Drain	Vent to Atmosphere	U
?	Product Tank	20'-8"	24'-0"	60,000 gal.	3/16"	1/8"	A-283-C		Lube Oil	Top loaded	Drain to Dike	"	LI
?	Product Tank	20'-8"	24'-0"	60,000 gal.	3/16"	1/8"	A-283-C	"	Lube Oil	Top loaded	Drain to Dike	"	LI
?	Water Tank	13'-6"	24'-0"	25,000 gal.	3/16"	1/8"	A-283-C	"	Water	Top loaded	Drain to X-508		LI .
?	Ethylene Glycol Feed	13'-6"	24'-0"	25,000 gal.	3/16"	1/8"	A-283-C	"	Ethylene Glycol	Top loaded	Drain to X-508	"	U
?	Ethylene Glycol Prod.	13'-6"	24'-0"	25,000 gal.	3/16"	1/8"	A-283-C		Ethylene Glycol	Top loaded	Drain to X-508	4 "	l Li

FIGURE 1 LOCATION MAP

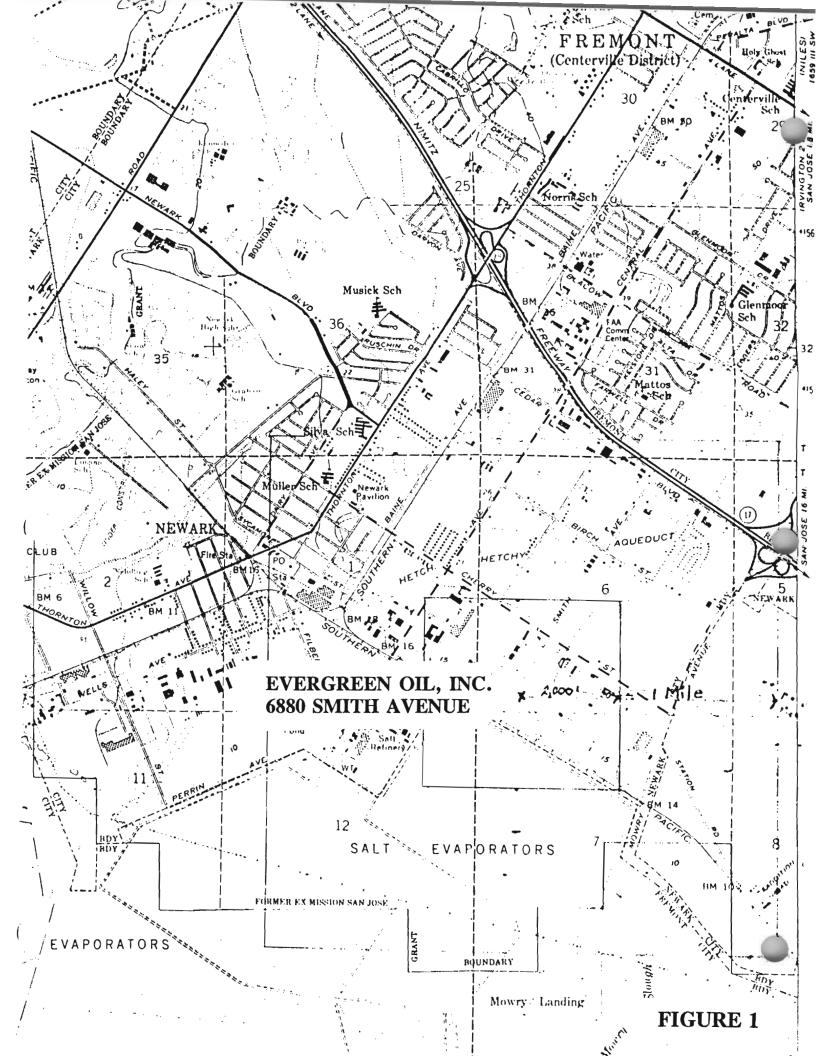
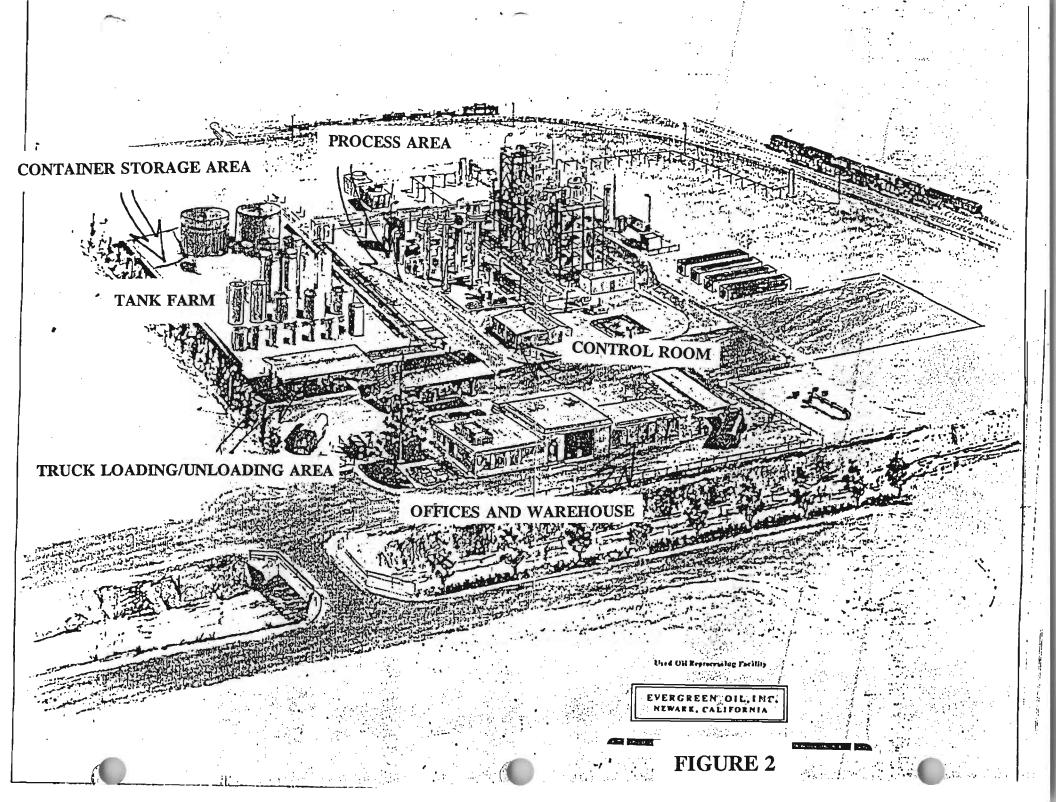


FIGURE 2 FACILITY PLANS



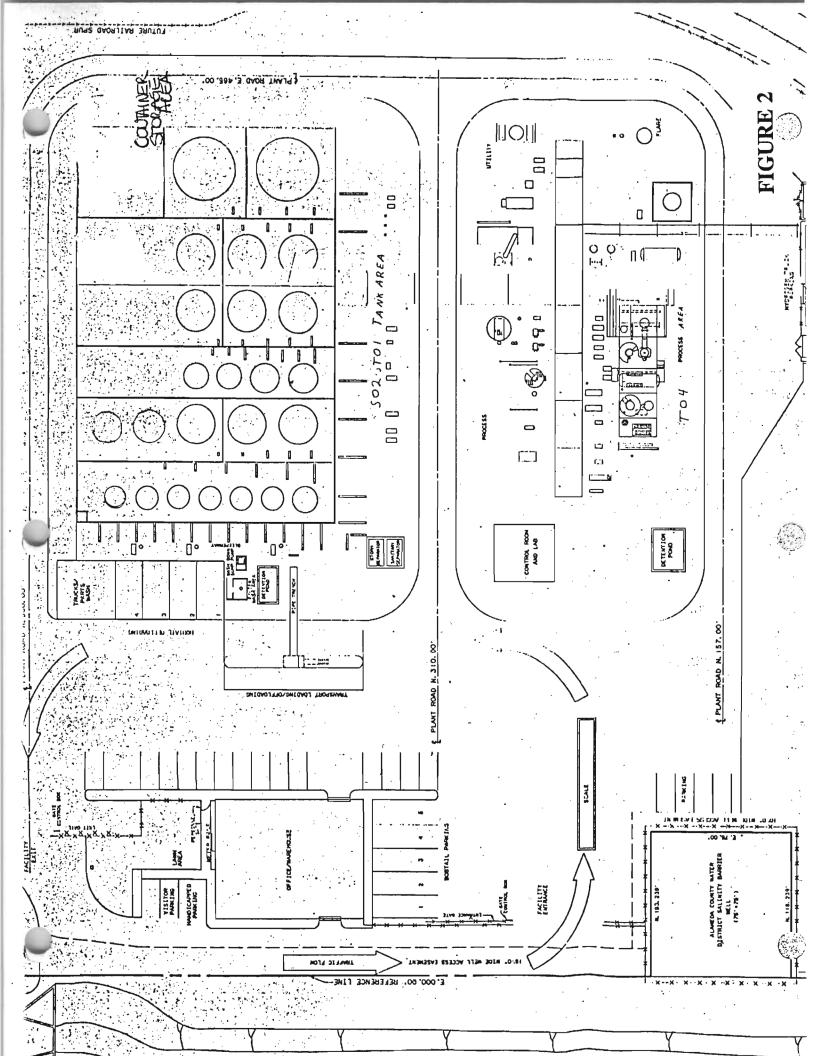


FIGURE 3 FLOODPLAIN MAP

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF NEWARK, CALIFORNIA ALAMEDA COUNTY

PANEL 5 OF 10

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER 060009 0005 D

> MAP REVISED: JULY 16, 1987

0

Federal Emergency Management Agency

KEY TO MAP

500-Year Flood Boundary ZONE B 100-Year Flood Boundary Zone Designations 100-Year Flood Boundary ZONE B 500-Year Flood Boundary-Base Flood Elevation Line ~513~ With Elevation In Feet** Base Flood Elevation in Feet (EL 987) Where Uniform Within Zone** Elevation Reference Mark RM7_X Zone D Boundary-River Mile

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
Α .	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
Α0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
АН	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
В .	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
С	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for use in administering the National Flood Insurance Program, it does not necessarily identify all areas subject to flooding, particularily from local drainage sources of small size, or all planimetric features outside special flood hazard areas.

Coastal base flood elevations apply only landward of the shoreline shown on this map.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION: FEBRUARY 22, 1974

FLOOD HAZARD ROUNDARY MAR DEMISIONS

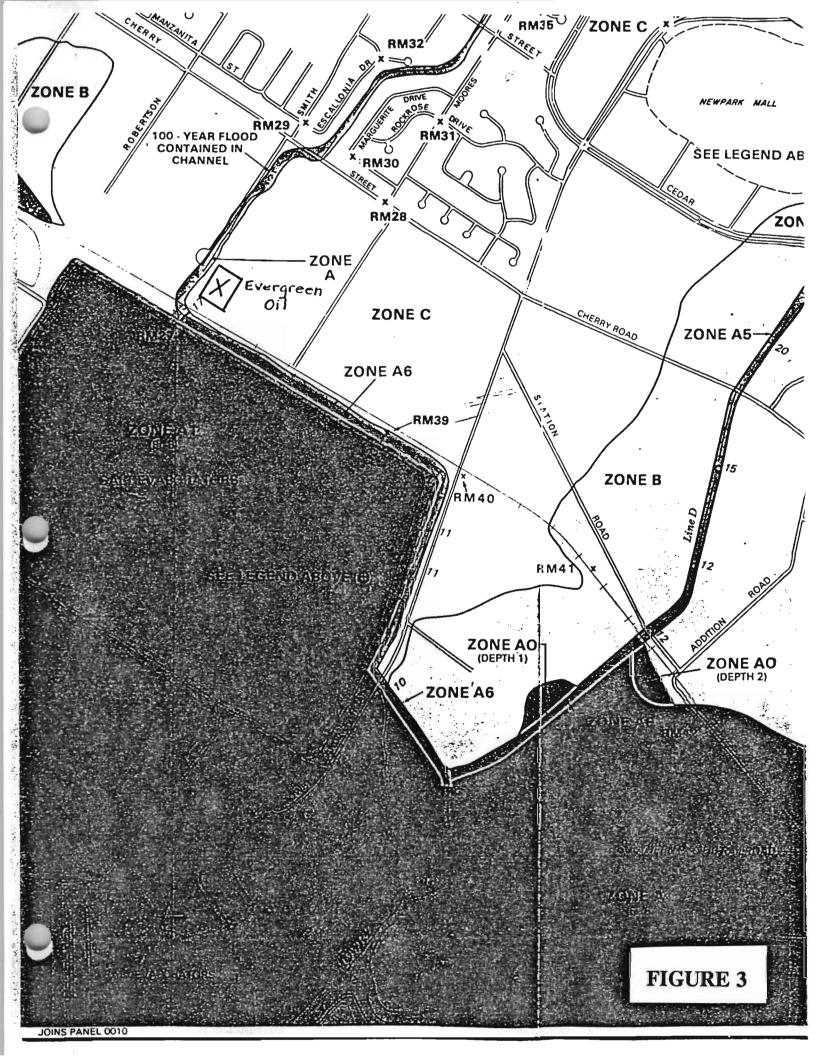
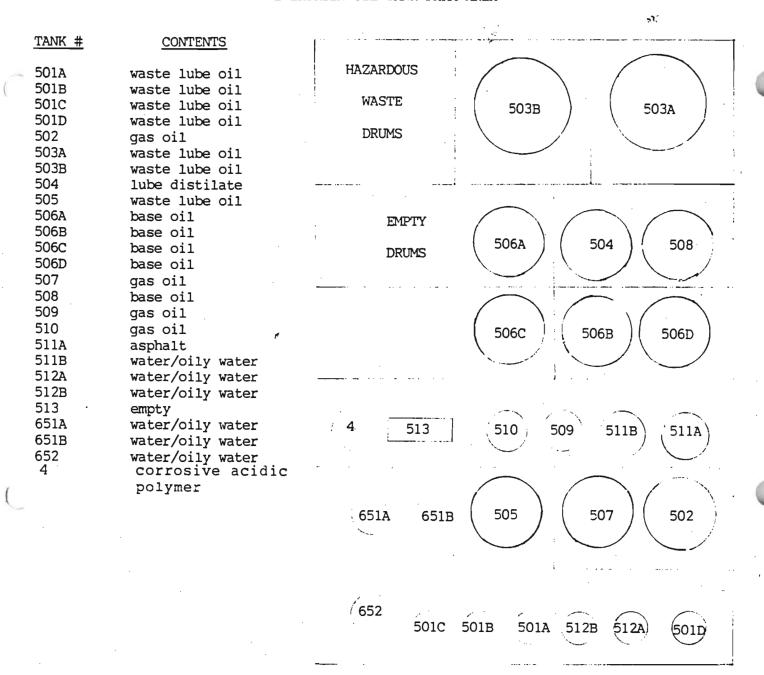


FIGURE 4 TANK FARM MAP

EVERGREEN OIL TANK FARM AREA



Key for page 1:

#1 (2) 2000# Cl₂ cylinders

#2 500 gals. 50% H_2O_2

#3 5000 gals. 50% NaOH

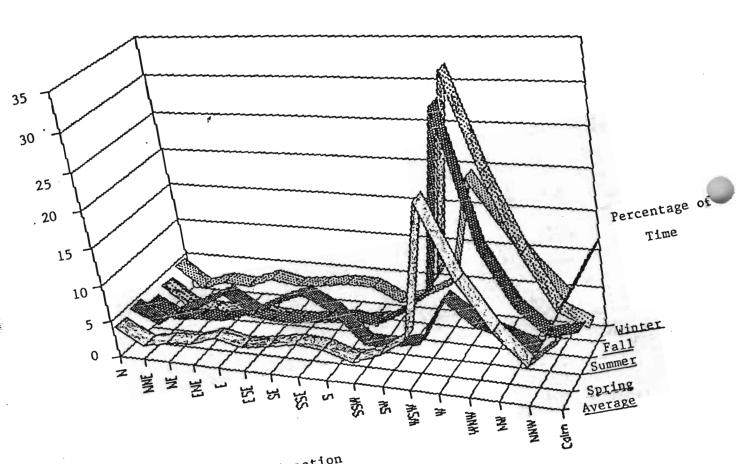
FIGURE 4

FIGURE 5 WIND ROSE

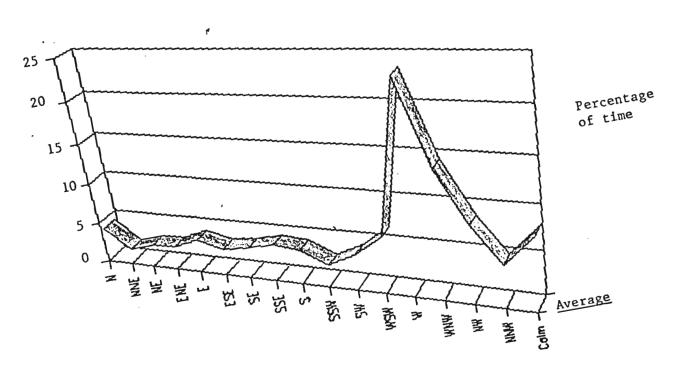
FIGURE 5

Rev. 1

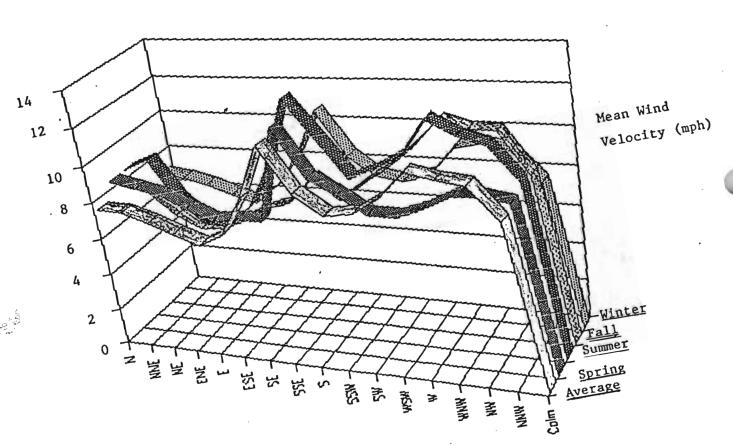
********	****								*******		
•	SUR	FACE HIND	SUHHARY								
- Station	s Station Name: GAKLAND INTL APT Elevation: 7 Feet (28) Degrees Minutes								Speed Uni	ts: MPH	
. Elev	ation:	7 1	eet (2	20)		1965	- 1978				*
	Degrees Minutes							•	Source Code Data: 1 Summary: L		
	# Horth Latitude: 37				+ 01	servatio	ns: 40.	79Z *	Data: 1		
* Hest Lo	ngitud	122	12		•				Summar	y: L	•
*******	-					111ER			HA.		
	HINTER RECTION X OF HEAN		SPF	SPRING		WEAN	~ ^~	LL	Z OF	HEAN	
	_						***		W 2 44 5		
	TIME	SPEED	TIME	SPEED	HIME	SPLLD	IInc	SPEED	IINE	SPEED	
N	4.5	0.4	3.Z	8.4	3.7	3.3	4.3	6.7	4.0	7.3	
HHE	2.6	8.1	/ 1.Z	7.8	0.7	3.2	1.0	0.7	1.0	7.5	
NE	4.7	7.8	1.6	6.7	•	4.5	2.7	0.7	2.4		
ENE	5.9	7.2	1.7	3.6		7.0	2.6	3.7	2.6	6.5	
E	7.7	6.6	2.0	3.6	0.0	5.2	3.7	3.3	3.0	6.0	
ESE	YIME SPEED 4.5 0.4 2.6 8.1 4.7 7.8 5.9 7.2 7.7 6.6 5.4 6.8 7.2 9.8		2.4	6.0	6.5	3. 3	3.3	0.0	2.7	8.7	
SC	7.Z	7.8	2.4	7.0	0.7	7.0	3.6	0.3	3.4	0.7	
, 55E	9.7	11.7	3.1	12.5	•	7.0	4.2	10.7	4.1	11.4	
5		9.2	3.5	10.5	1.1	•. /	4.0	0.4	4.1 3.8 2.4	7.1	
SSH		8.4	3.0	8.6	1.0	7.7	2.2	7.4	2.4	U. 1	
	2.9	7.5	5.1	9.2	4.2	0.6	3.5	7.Z	3.9	6.3	
HSH	3.6	7.5	7.9	7.7	8.4	9.7	3.4	7.6	6.3 23.4	7.1	
H	9.6	8.6 9.7	30.9	11.7	33.4	11.1	19.4	9.1	23.4	19.5	
		8.7	14.5	11.6	21.8	10.7	13.9	7.4	14.2	18.2	
	5.7	8.8	7.4	10.6	12.2	10.7	8.6	9.1	8.5	19.8	
нны	4.4	8.6	4.1	8.9	5.3	8.6	4.7	7.6	4.5	8,4	
, CALH	11.1	7.4	. 5.1		3.6		11.4		•.•		
ALL		7.4		9.7		9.7		7.3	8.5 4.6 8.8	8.6	
	HI.	HTER	251	RING	SUMMER RESULTANT HINDS		PACE		ANNUAL		
	• • • • • •				282		370				• • •
DIRECTIONS	;	169	272 6.1		6.8		27 8 3.2		4.3		
SPEED: PER. RATIO		6.7	'	D . 1	_	6.83		3.2 8.44		•. 3 . 58	
PER. RATIO): ¥	. 87	•	.63	MCDOM THA	.dj My utune	•				
				"	PEDOUTUM	HHH HINDS		 KMM			• • •
	DIRECTION: SSE SPEED: 18.1		н		10.9				нин		
SPEED:		= · 1	<u>.</u>	4	67.4 ARY PREDOMINANT NI		41.		10.3		
PERCENTAGE	2	<.4	3.	3.3 SECONO4	ARY PRETIO	HIHAHT W	INDS .				
DIRECTIONS	• • • • • •			HHH		SH				SH	• • •
SPEED:		ики 8.4					9.2			9. 7	
PERCENTAGE				3. 0 4.7	1	4.4	11.0		1	2.6	
FERCERING		~. •	•	¬.,					Resources		
							 	••••		_ , _	



Wind Direction



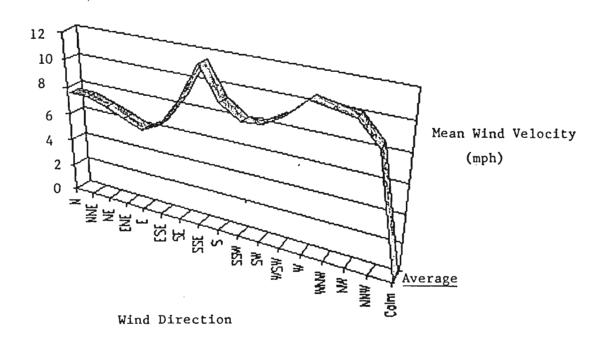
Wind Direction



Wind Direction

FIGURE 5

ALUV. I



APPENDIX A

TANK EXPLOSION INCIDENT INFORMATION REPORT

APPENDIX A

October 29, 1986

DEPARTMENT OF HEALTH

BERVICES PACEIVED

Mr. Michael R. James Department of Health Services Toxic Substances Control Division 2151 Berkeley Way Annex 7 Berkeley, CA 94704

Dear Mr. James:

SUBJECT: Incident Information Report

The following information is provided as per Title 22, CAC.

OPERATOR: Evergreen Oil Inc.

6880 Smith Avenue Newark, CA. 94560

FACILITY: Evergreen Oil Inc.

6880 Smith Avenue

Newark, CA. 94560 (415) 791-1311

INCIDENT: At approximately 5:15 AM P.S.T. on 10/26/86 the

> Evergreen facility experienced an operating incident involving an asphalt storage tank. The tank was damaged as a result of a fire and a rapid build up

in pressure.

MATERIALS: Approximately 100 gallons of asphalt was burned in INVOLVED

the resulting fire.

EXTENT OF NONE

INJURIES

CAUSE:

HAZARD Black smoke was discharged during the fire. No other ASSESSMENT: material posed an actual or potential hazard to the

environment or human health outside the facility. All

remaining asphalt was contained.

RECOVERED 10,000 gallons was processed and recovered as asphalt MATERIAL material. This product will be sold commercially.

This incident was caused by the ignition of hydrocarbon vapor present in the vapor space within the tank.

STEPS TAKEN: The resulting fire was contained within the tank.

> fire was controlled by use of the resident foam system which was activated by plant personnel. The fire was quickly put out when the tank contents were cooled by

6880 SMITH AVENUE · NEWARK, CALIFORNIA 94560 TELEPHONE: (415) 791-1311 - ITT TELEX: 4947198 EVRGRN



use of water spray. The Newark Fire Department responded and assisted in the control and elimination of the resulting fire.

STEPS PLANNED: To correct this situation and prevent reoccurence of this event, this storage tank will be blanketed with nitrogen and any asphalt material transferred into the tank will be cooled. These steps have already begun to be implemented and will be completed prior to resuming operations within the next two weeks.

Please feel free to contact me at Evergreen Oil, Inc., if there are any questions regarding this information.

Best (regards,

David J. Dragt Plant Manager

DD/1d

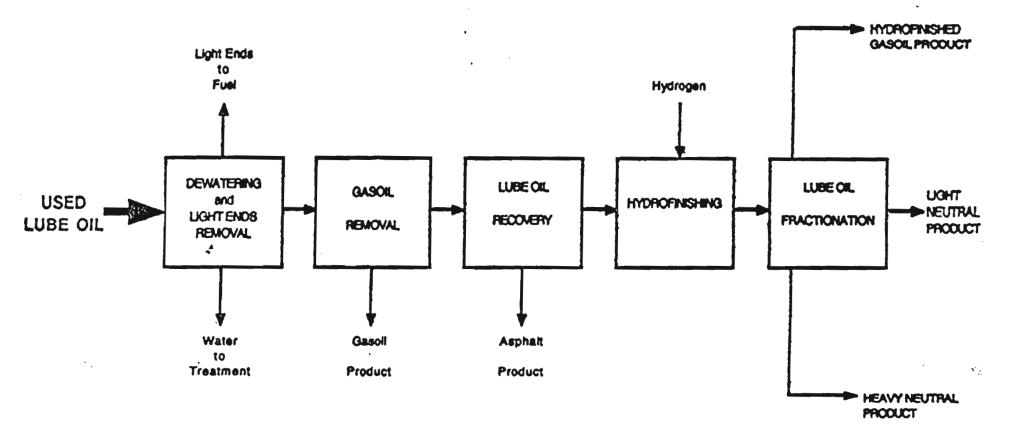
APPENDIX B

FLOW DIAGRAM OF USED OIL PROCESSING

USED OIL PROCESSING FACILITY

Block Flow Diagram

Page 3 of 8
Rev. 0
Exhibit II.A.15



CONFIDENI

CEP CHEMICAL ENGINEERING PARTNERS
18001 COWAN, SUITES F& G
IRVINE, CALIFORNIA

APPENDIX B

O % Water

7 % Diesel and Gas Oils

65% Lube Distillate

14 % Residue



STEP 1 Water, gasoline and other light components are the first to be removed.

This is accomplished by atmospheric flash evaporation (Dewatering Column)

STEP 2 Diesel fuel and gas oils are the next contaminants to be removed from the new dewatered oil.

This is accomplished by Vacuum Distillation (Gasoil Column)

STEP 3 Dirt, polymers, heavy metals and other texic contaminants are removed from the lube oil by a specially designed This-Film Evaporator operating under a high Vacuum (Lube Distillate Column)

The residue from this stage is and evironmentally acceptable substitute for certain vigin asphalt products.

APPENDIX C

LOCATIONS OF SAMPLING AND ANALYSIS RESULTS OF UNPAVED AREA

501C ANK 652 S 8 m approx 1.5 m O O FENDERS SIFE SAMPLED Not pt Sent DRAWINGS

	Part A (7) Requestor's RECP Region	's Name	Priority 1 (PL)	Priority Level 2- (PL) 540-8891					
	inalytical	# of			‡ of		s requested)	t of	
1		Samps	Туре	Analysis	Samps	Typa	Analysis	Samba	Type
1	H			Vol.Org.		la N	Phenols	-	
9.7	etal Can	}		8010 8020		- 14	Carbamates		
٠.		Distance A	- 80	#24n			T.C.L.P.	1	
	letal specific)	Photos Corn	Soil"	Cl-Pest			Metals Volatiles		
 -	.E.T.	Congra		OP-Pest		1	Semivols. Pesticide		
19	AH	2	Soil	Ext. Org.			Herbicide		-
1				Screeng		45	·	-	antona .
1	CB 6080			8270	-	1	alpeady to		
	Analysis Objective (a) Waste Characten. b. Treatment Stds. (circle one) (c. Drink, H2O Stds. d. Other								
l_			<u> </u>	!	A. de		poques		z Onj
1				D BY STO)	Hurn	GIL	mo. Sch /c	25	
A	uthorizat	ion Nun	ber i	(AN)	SCH	100	15-8		
E	xpiration	Date	,		1.10			والمالة والمالة الم	- ,
I	ab to Rec	eive Sa	mples	Name: Addres	e- 700	Heinz	st., Ste. 150 CA 94710	-	
s	ample Tra	eking C		(STO):	Stowers	12	/ashing	E ,	
*				analyses to			ne TCLP extrac	et on 1	
;			1		4	13		4	

Vice-ory

State Department of Health Services Hazardous Materials Laboratory

HML EXPRESS PLAN AUTHORIZATION REQUEST FORM (ARF)

FEB & 1992
* EB 25

			ed by Requ					
		1	Vaj:		10	Priority (PL)	Level	2
Phone No	aber	:(510)	540-388 Planned:	-	PAX :	610) <u>5 Vo-3</u> analysis requ		
Analysis	s of Spls	Spl Type	Analysis	# of Spls	Sp1	Analysis	# of Spls	Spl Type
pĦ		i i	Vol.Org.			Carbanates		
Metal Soan		,	#dSpce 8010 8020			T.G.L.P.(*)		
Metal pecifo)	, ·	7 P	8240 Cl-Pest			Metals Volatiles Semivols. Pasticides		-
W.E.T			OP-Post			Herbicides		
PAH -			Ext.Org.			TPH	EA4	Sai
PCB 8080			8270	N. Friday		TPH	2	ai
		COLUMN TO SERVICE DE LA COLUMN	ples Arriv		110	2/25 n. b. Treat		-
Analysia (circ	le on		c. Dr	inkg.H	0 Std	s. d. Other		-
(श क्षम.	thes esta	dished Ka						
(शं क्षम.	ika esta o ber c	dished its) ed by 870)		1	1025		
(if ##.	be contaction De	ompleto n Number	or (AN) Name	3 : South	C H	1 0 2 5 1 92 Allifornia Lab Temple St., Rines, CA 90026		

(a) Remember to list TCLP analysis requirement (SAR) form.

arfrey 2/92

State Department of Health Services Hazardous Materials Laboratory

HML EXPRESS PLAN AUTHORIZATION BEQUEST FORM (ARF)

FEB	E F	⁷⁹ 92
		مريخ لي

Part A (to	be o	omplete	ed by Reque	entor .	- PERA	F PRINT)		1767	
Requesto	r's Na		Vaji V	latia F	ad	Priority (PL)	Level	2	
TSCP Beg	Requestor's Name: Vajin Malia Fand (PL) TSCP Region / Unit: SEE, Regid 2								
Phone Number : (50) 540-3888 PAX : (510) 540-3819									
Analytical Requests Planned: (circle analysis requested)									
# of Spl # of Spl # of Spl Analysis Spls Type Analysis Spls Type									
рĦ		,,	Vol.Org.			Carbanates			
Metal Soan		·	EdSpoe 8010 8020			T.G.L.P.(*)			
Metal (specifo)			8240 CI-Pest			Metals Volatiles Semivols			
W.E.T			OP-Pest			Pesticides Herbicides			
PAH -			Ext.Org.			TPH	EA4	sail	
PCB 8080			Screens 8270			TPH	2	ail	
Expected	Date	of Sai	eples Arriv	al at	Lab	2/25	197		
Analysis (circ	Object le os	otive	R. Was	to Chi	o Stde	b. Treat		tds.	
Detection (if diff.	r Link Han asta	it Requ	irements						
Part B (to	be c	omplet	ed by STO)						
Authori	ratio	a Numbe	or (AK)	S	CH	1025			
Expirat	ion D	ate	Name		111	1 92 Ilifornia Lab			
Lab to		Į	Addre	ss: 144 Los	9 W. 7 Angele	Femple St., R/1 8, CA 90026	n. 101		
Sample	Track	ing Of	ficer (STO) :	eun	Jung	- -		
1		To	day's Date	:	210				
-	1			_ !		d in Section	12 of	the	

(*) Remember to list TCLP analysis requirement (SAR) form.

J. To.

JEST □ FPB	4. Phone () 7. Time Sample ATD a. EPA ID N		Hours	a. Authoriza	ad byin all applicable	
	7. Time Sample	d •	Hours	a. Authorize	d by	
	□ ATD □		Hours	8. Codes (ill)		
□FPB	□ ATD □			/ / / / / / /		Total Control of the
			□ Other			
	a FPA ID N		· · ·	b. Region	A.C.	
	a FPA ID N	<u> </u>		c. TPC		
	u. 2. // 15 14	0.	in the second	d. INDEX		
				e. PCA		
				f. SITE		2.7453
troct	City	·	Zip	g. County		4.195
	Samol	۵	Container			
c. Lab No.		e <u>e.</u>	Type f. S	Size g	. Field Informat	on
<u> </u>	_					
•• •	_					•
	_					
	_					
f. 🗆	PCB			k. 🗆 Ext. O	rg	
g. 🗆	VOA-H/S					
_				Point		
			_		· · · · · · · · · · · · · · · · · · ·	
i. [VOA-8260			n. 🗆		
j. 🗆	SVO-8270			o. 🗆	to the state of	
PA	H				Initials	M
Heavy	nefols pl. A	s .□	<u></u>		Date 3/	1/92
		ria i lui	24		<u> </u>	
	<u> </u>	Name/Title	·		Inclusive D	stes
	1			· :	1 1 -	/ /
		, ;			/ 1 -	/ /
		Name/Title			Inclusive D	atcs /
		Name/Title			Inclusive D	stes
_					Date	
					2 4.0	
				· ·		
	f. C g. C h. C	Sample d. Typ f. PCB g. VOA-H/S h. VOA-8240 i. VOA-8260 j. SVO-8270 PAH Heary Metals Pl. A	Sample d. Type e. T f. PCB g. VOA-H/S h. VOA-8240 i. VOA-8260 j. SVO-8270 PAH Heavy Nebols Pb, As Gray Cury Name/Title Name/Title	Sample Container e. Type f. S f. PCB g. VOA-H/S h. VOA-8240 i. VOA-8260 j. SVO-8270 PAH Heavy Metals Ph. As D Name/Title Name/Title	Sample Container c. Lab No. d. Type e. Type f. Size g f. PCB k. Ext. O (Screen g. VOA-H/S h. VOA-8240 i. VOA-8240 j. SVO-8270 PA H	Sample Container c. Lab No. Sample Container

SOUTHERN CALIFORNIA LABORATORY HAZARDOUS MATERIALS UNIT 1449 W. TEMPLE STREET, LOS ANGELES TEL: 213 620-3376

CASE NARRATIVE

1.	THIS ANALYTICAL REPORT PACKAGE WAS PREPARED FOR SCL SAMPLES 11123 TO 11124
2.	SAMPLES WERE COLLECTED ON 02/25/92 AT EVERGREEN OIL INC.
3.	COLLECTOR'S NAME ON THE SAMPLE ANALYSIS REQUEST FORM IS VAJIE MOTTAFARD
4.	SAMPLES WERE:
	RECEIVED ON 02/27/92
	EXTRACTED ON 03/03/92 -03/09/92 BY SCL METHOD 418 (TPH ANALYSIS BY IR)
)	ANALYZED ON 03/05/92 - 03/09/92 BY SCL METHOD 418 (TPH ANALYSIS BY IR)
	NOTE: SCL METHOD = SOUTHERN CALIFORNIA LABORATORY METHOD
	DATA PACKAGE WAS COMPLETED ON 03/10/92.
5.	DURING THE COURSE OF THESE ANALYSES, NO PROBLEMS WERE ENCOUNTERED.
6.	QC PARAMETERS/INDICATORS WERE WITHIN CONTROL LIMIT.
7.	HOLDING TIMES WERE MET.

8. INSTRUMENT INITIAL CALIBRATION & CONTINUING CALIBRATION CRITERIA WERE MET.

SOUTHERN CALIFORNIA LABORATORY HAZARDOUS MATERIALS UNIT 1449 W. TEMPLE STREET, LOS ANGELES TEL: 213 620-3376

INDEX

(SCL 418 FOR SCL 11123-11124)

		PAGE
1.	CASE NARRATIVE	1
2.	INDEX	2
3.	HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST FORMS	3
4.	LABORATORY ANALYTICAL REPORT(S)	4
5.	QC SUMMARY FOR a. Method Blank b. Method Standard Recovery c. Laboratory Control Sample d. Sample Duplicate Analysis	5
6.	QC SUMMARY FOR Matrix Spike / Matrix Spike Duplicate Recovery	6

TOTAL PAGES = 6

Department of Health Services Hazardous Materials Laboratory

	· · · · · · · · · · · · · · · · · · ·		
HAZARDOUS MATERIALS	1. Authorization Number	HML No. 2. Page	
SAMPLE ANALYSIS REQUEST	SCH 1 725	To of !	_
3. Requestor: Vajic Motia Fard Address (To Receive Assults): 700 Heinz	4. Phone (?) = 11 - 5228 Ave., Suite 200, Berk. 9471	5. Priority 2 a. Authorized by	$\frac{1}{2}$
6. Date Sampled 2/2-5/9 2	7. Time Sampled / 15 B Hours	8. Codes (fill in all applicable codes)	
9. Activity: ⊠ SEB □ SMB □ FP	B □ATD □PASD □Other	a.STC 3050 b.Region 02	Con Harris
10. SAMPLING LOCATION	D 9 8 0 6 9 5 7 6 1 a. EPA ID No.	c. TPC d. INDEX 654 7	A CONTRACTOR
b. Site E-Vergreen Oil Inc		e. PCA 3 2 0 0 5	Water Can
c. Address 690 Smith	Ave., Newark 94560	g. County	Pichery
11. SAMPLES	Sample Container		
a. ID b. Collector's No. c. Lab Market B 2 /// 2	d. Type e. Type f. S	gi i i i i i i i i i i i i i i i i i i	
			- ¦
<u> </u>			1
12. ANALYSIS REQUESTED f.	□ PCB	_ k. ☐ Ext. Org (Screening)	
a. 🗆 pH 9	. 🗆 voa-h/s	i. ☐ Flash	
	. 🗆 VOA-8240		
	. 🗆 VOA-8260	_ n. 🗆	
(Spec) d. □ W.E.T j	. 🗆 SVO-8270	_ 0. 🗆	
13. SUPPLEMENTAL		InitialsDate	
14. CHAIN OF CUSTODY a. Signature	LAITAIN HMS	2 125 10-255 112 Inclusive Dates	
b. Signature	Vajie MotiaFard At	tMS 2/25/92-2/26/92	
c. Janus Hte ha kews	. Linice Wa Ka Kawo /PHC	7/1 2/27/92 / / hadusive Dates	
d./			
15. SPECIAL REMARKS:	Name/Title	Inclusive Dates	
16. ASSIGNED TO:		Date	
17. LAB REMARKS:			L
			<i>E</i>

LABORATORY REPORT

Southern California Laboratory Section - Hazardous Materials Unit 1449 Temple Street Los Angeles Ca. 90026

Telephone 213-620-3376

Collector's Name: VAJIE MOTIAFARD

SCL No.

: 11123 - 11124

Date Reported : 03/12/92

Sample Location : EVERGREEN OIL INC.

6880 SMITH AVE,

NEWARK, CA.94560.

Analytical Procedures Used: SCL 418 (TPH BY IR)

TPH ANALYSIS

SCL NO.	COLLECTOR'S NO.	TOTAL PETROLEUM HYDROCARBONS
11123	1	830 mg/kg
11124	2	550 mg/kg

Analyst's Signatures:

Supervising Chemist's Signature:

hucia yap

ر 1/*9/9)* Date

RUSS CHIN

Da+a

QUALITY CONTROL (QC) SUMMARY

SOUTHERN CALIFORNIA LABORATORY - HAZARDOUS MATERIALS UNIT

1449 W. TEMPLE STREET, CA 90026

TEL: 213 620-3376

PAGE 1 OF 2

COLLECTOR'S NAME :

VAJIE MOTIAFARD

DATE SAMPLE RECEIVED: 02/27/92

SAMPLING LOCATION: EVERGREEN OIL INC.

DATE SAMPLE PREPARED: 02/03/92 - 03/09/92

ANALYTICAL BATCH LAB ID NO.: SCL 11123, 11124, 11125

DATE SAMPLE ANALYZED: 03/05/92 - 03/09/92

ANALYTICAL PROCEDURES USED: SCL 418 (TPH BY IR)

QC SUMMARY FOR

METHOD BLANK

METHOD STANDARD RECOVERY

LABORATORY CONTROL SAMPLE

SAMPLE DUPLICATE ANALYSIS

	A	В			C
	METHOD	METHOD STANDARD		LABORATO CONTROL	
	BLANK	RECOVERY	CONTROL LIMIT	RECOVERY	CONTROL LIMIT
COMPOUND	MG/KG	*	%	mg/Kg	mg/Kg
TPH	<100	86.5	NDY	1134	669 -136 5
				·	

D							
DUPLICATE SAMPLE ANALYSIS Performed on SCL 11125 Matrix SOIL							
	RUN 1	Run 2	RPD				
•	MG/KG	MG/KG	*				
ТРН	99585	109958	9.9				
C	ONTROL	LIMIT	<20				

NDY = not determined yet

SAMPLE PREPARATION

ANALYST

SUPERVISING CHEMIST

QUALITY CONTROL (QC) REPORT

SOUTHERN CALIFORNIA LABORATORY - HAZARDOUS MATERIALS UNIT

1449 W. TEMPLE STREET, CA 90026

TEL: 213 620-3376

PAGE 2 OF 2

COLLECTOR'S NAME: VAJIE MOTIAFARD

DATE SAMPLE RECEIVED:02/27/92

SAMPLING LOCATION: EVERGREEN OIL INC.

6880 SMITH AVE, NEWARK, CA.94560

ANALYTICAL BATCH LAB ID NO .: SCL 11123 - 11124

DATE SAMPLE PREPARED: 03/03/92 - 03/09/92

ANALYTICAL PROCEDURES USED: SCL 418 (TPH BY IR)

DATE SAMPLE ANALYZED:03/05/92 - 03/09/92

QC SUMMARY FOR MATRIX SPIKE(MS)/MATRIX SPIKE DUPLICATE(MSD) PERCENT RECOVERY

MATRIX SPIKE PERFORMED ON	N SCL 11124	-	YPE OF MATR	IX SO	IL		TYPE OF	SPIKE	TPH	·	
	AMOUNT OF ANALYTE	AMOUNT ANALYTE	MATRIX SPIKE		MATRIX SPIKE DUPLICATE		AVE	CONTROL LIMIITS	R % D BETWEEN	CONTROL LIMIITS	
COMPOUND	IN SAMPLE	ADDED	AMOUNT RECOVERED	% REC	AMOUNT RECOVERED		% REC	FOR % REC		MS/MSD	FOR RPD
-	MG/KG	MG/KG	MG/KG	×	MG/KG	x	%	%	%	x (
TPH .	553	1600	2005.5	90.8	2213.0	103.7	97.3	NDY	13.3	<20	
-											
									1	_	
										_	
							 				

SAMPLE PREPARATION

ANALYST

SUPERVISING CHEMIST

SOUTHERN CALIFORNIA LABORATORY HAZARDOUS MATERIALS UNIT 1449 W. TEMPLE STREET, LOS ANGELES TEL: 213 620-3376

CASE NARRATIVE

1.	THIS ANALYTIC	CAL REPORT PACKAGE WAS PREPARE	D FOR SCL SAMPLES 1112:	3,11124
2.	SAMPLES WERE	COLLECTED ON 02/25/92	EVERGREEN OIL INC AT 6880 SMITH AVE. 1	
3.	COLLECTOR'S 1	NAME ON THE SAMPLE ANALYSIS RE	QUEST FORM IS VAJIE MO	TIAFARD
4.	SAMPLES WERE	:		
	RECEIVED OF	N 02/27/92		
)	EXTRACTED ON	N 03/09,10/92 BY EP	PA MEIHOD 3540 (SOXHLI	ET EXTRACTION)
		N 03/11/92 BY EP.	PA METHOD 8270 (GC/MS	SEMIVOLATILE GANICS—PAH)
	DATA PACKAGE	WAS COMPLETED ON 03/12/92		
5.	NO MAJOR PROF	BLEMS WERE ENCOUNTERED DURING	THE COURSE OF THESE ANAI	LYSES.
6.	ALL OF THE Q	C PARAMETERS/INDICATORS WERE W	TTHIN CONTROL LIMITS.	
7.	INSTRUMENT I	NITIAL CALIBRATION & CONTINUIN	G CALIBRATION CRITERIA 1	VAS MET.

8. HOLDING TIMES WERE MET.



SOUTHERN CALIFORNIA LABORAȚORY HAZARDOUS MATERIALS UNIT 1449 W. TEMPLE STREET, LOS ANGELES TEL: 213 620-3376

INDEX

(EPA 8270 FOR SCL 11123 & 11124)

,	PAGE
1. CASE NARRATIVE	1
2. INDEX	. 2
3. HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST FORMS	3
4. LABORATORY ANALYTICAL REPORT(S)	4
5. QC SUMMARY FOR a. Method Standard recovery b. Laboratory Control Sample c. Sample Duplicate Analysis	5
6. QC SUMMARY FOR Matrix Spike / Matrix Spike Duplicate Recovery	6
7. QC SUMMARY FOR Surrogate Recovery	7

TOTAL PAGES = 7

HAZARDOUS MATERIA		HML 1 5.	2. Page
SAMPLE ANALYSIS REC			of 1
Requestor: Vajie Motia	4. Phone (2)571 - 3888	A should not be a	
Address (To Receive Results): 700	Heinz Ave., Suite 200, Berk	. 171,0	-1
6. Date Sampled 2/25/	7. Time Sampled 1:15 R	8. Codes (fill in all application a. STC 3050	ole codes)
9. Activity: ⊠ SEB ☐ SMB	□FPB □ATD □PASD □C	b. Region () 2	
D. SAMPLING LOCATION	CAD98069576	/ c. TPC	
	a. EPA ID No.	d. INDEX 6540	
b. Site Evergreen O	Inc.	e. PCA 3 2 0 0	L
	1	f. SITE	
c. Address 6880 8	smith Ave., Newark 90	4.560 g. County	
1. SAMPLES	Street , City Z	p -	
		tainer	
a. ID b. Collector's No.	c. Lab No. d. Type e. Type	f. Size g. Field Information of Contractions	ation = : -
В 2	11124. Sail 6	2502 With wha	te sil
С			
		-	
<u>Е</u>			
G			
_н			
2. ANALYSIS REQUESTED	f. □ PCB	k. Ext. Org	
ı. □ pH	g. 🗆 VOA-H/S	(Screening) i. ☐ Flash	
		Point	
. MetalScan	n. 🗆 voa-8240	m. \(\bullet \tau \bullet \bulle	
Metals	i. □ VOA-8260	n. []	
(Spec)		o. \	
3. SUPPLEMENTAL	, ,	Initials	
REQUESTS		Date	
		0.00	
4. CHAIN OF CUSTOPY	DAITAN HM		
Signature Land	Vajie Matia Fard	AHMS 2125/1/2-	212619
Signature /	Butte Line a Vaka Karina	PHCTE 2/27/92	Dates
C. Signature	Name/Title	Inclusive	
d. Signature	Name/Title	boclusive	Dates
15. SPECIAL REMARKS:			
16. ASSIGNED TO:		Date	
17. LAB REMARKS:			



LABORATORY REPORT Hazardous Materials Unit Southern California Laboratory Section Telephone 620-3376

Collector's Name: VAJIE MOTIAFARD

Sample Location: EVERGREEN OIL INC.

6880 SMITH AVE. NEWARK 94560

Analytical Procedures Used: EPA 8270

SCL NO. 11123,11124

Date Reported: 03/12/92

GC/MS SEMIVOLATILE ORGANICS - PAH ANALYSIS

					QUANTI LIMIT	TATION	
	SCL NO.	Mathad	11123	11124	Mashad	11123 11124	
	COL.NO.	Method Blank	1	2	Method Blank		
	MATRIX	SAND	SOIL	SOIL	SAND	SOIL	
COMPOUNDS	UNIT	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	
NAPHTHALENE	91-20-3	ND	ND	ND	5	5	
ACENAPHTHYLENE	208-96-8	ND	ND	ND	5	5	
ACENAPHTHENE	83-32-9	ND	ND	ND	5	5	
FLUORENE	86-73-7	ND	ND	ND	5	5	
PHENANTHRENE	85-01-08	ND	ND	ND	5	5	
ANTHRACENE	120-12-7	ND	ND	ND	5	5	
FLUORANTHENE	206-44-0	ND	ND	ND	5	5	
PYRENE	129-00-0	ND	ND	ND	5	5	
BENZO(a)ANTHRACENE	56-55-3	ND	ND	ND	5	5	
CHRYSENE	218-01-9	ND	ND	ND	5	5	
BENZO(b) FLUORANTHENE	205-99-2	ND	ND	ND	5	5	
BENZO(k)FLUORANTHENE	207-08-9	ND	ND	ND	5	5	
BENZO(a)PYRENE	50-32-8	ND	ND	ND	5	5	
INDENO(1,2,3-cd)PYRENE	193-39-5	ND	ND	ND	5	5	
DIBENZ(a,h)ANTHRACENE	50-70-3	ND	ND	ND	5	5	
BENZO(ghi)PERYLENE	191-24-2	ND	ND	ND	5	5	

TENTATIVELY IDENTIFIED COMPOUNDS: OXADIAZON IS PRESENT IN SAMPLE 11124.

ND = NOT DETECTED

QUANTITATION LIMIT = (CONCENTRATION OF LOWEST CALIBRATION STANDARD) x (DILUTION FACTOR)

SAMPLE PREPARTION:

ANALYST:

SUPERVISING CHEMIST

QUALITY CONTROL (QC) SUMMARY

SOUTHERN CALIFORNIA LABORATORY - HAZARDOUS MATERIALS UNIT

1449 W. TEMPLE STREET, CA 90026

TEL: 213 620-3376

PAGE 1 OF 3

COLLECTOR'S NAME : VAJIE MOTIAFARD

DATE SAMPLE RECEIVED: 02/27/92

SAMPLING LOCATION: EVERGREEN OIL INC.

6880 SMITH AVE. NEWARK 94560

EPA METHOD 3540

DATE SAMPLE PREPARED: 03/09,10/92

ANALYTICAL BATCH LAB ID NO .: SCL 11123,11124

ANALYTICAL PROCEDURES USED: EPA METHOD 8270 GC/MS FOR SEMIVOLATILE ORGANICS-PAH

SOXHLET EXTRACTION

DATE SAMPLE ANALYZED: 03/11/92

QC SUMMARY FOR

A: METHOD STANDARD

B: LABORATORY CONTROL SAMPLE - SOIL MATRIX LCS WAS ANALYZED

C: DUPLICATE SAMPLE ANALYSIS

		A	В		
	METHOD STANDARD RECOVERY	CONTROL LIMITS FOR METHOD	LAB CON SAMPLE I LCS-BNA-1 (SOIL MA	D NO &2-0189	
	FOR EPA 3540	STANDARD % RECOVERY	Control limits	Found	
COMPOUND	%	*	mg/kg	mg/kg	
PHENOL	98	59.8-117	841-1323	1200	
2-CHLOROPHENOL	99	50.7-137	722-1082	983	
1,4-DICHLOROBENZENE	86	25.8-107	367-797	409	
N-NITROSO-DI-N-PROPYLAMINE	100	60.8-115	850-1266	924	
1,2,4-TRICHLOLROBENZENE	97	48.2-115	643-1183	857	
4-CHLORO-3-METHYL PHENOL	100	68.6-117	832-1356	1062	
ACENAPHTHENE	99	77.8-111	857-1139	876	
4-NITROPHENOL	103	60.0-128	760-1628	1378	
2,4-DINITROTOLUENE	99	73.0-119	933-1435	1254	
PENTACHLOROPHENOL	100	64.7-125	762-1630	1223	
PYRENE	100	73.1-117	801-1461	962	

С			
DULPICATE SAMPLE ANA	ALYSIS		
Performed on SCL 11124 Ma	trix S	01L	
	Run 1	Run 2	RPD
COMPOUND	mg/kg	mg/kg	%
No data (target compounds were not detected.)			
_			
	CONTROL	LIMIT	<20

SAMPLE	PREPARATION:
--------	--------------

3/17/42

MADY NEE

ANALYST:

3/17/92

RUSS CHIN

SUPERVISING CHEMIST

3/17/9

DATE

QUALITY CONTROL (QC) SUMMARY,

SOUTHERN CALIFORNIA LABORATORY - HAZARDOUS MATERIALS UNIT -

1449 W. TEMPLE STREET, CA 90026

TEL: 213 620-3376

PAGE 2 OF 3

COLLECTOR'S NAME : VAJIE MOTIAFARD

DATE SAMPLE RECEIVED: 02/27/92

SAMPLING LOCATION: ENERGREEN OIL INC.

DATE SAMPLE PREPARED: 03/09,10/92

6880 SMITH AVE. NEWARK 94560.

DATE SAMPLE ANALYZED: 03/11/92

ANALYTICAL BATCH LAB ID NO.: SCL 11123,11124

ANALYTICAL PROCEDURES USED: EPA METHOD 8270

GC/MS FOR SEMIVOLATILE ORGANICS-PAH

QC SUMMARY FOR

EPA METHOD 3540 SOXHLET EXTRACTION

_

MATRIX SPIKE(MS)/MATRIX SPIKE DUPLICATE(MSD) PERCENT RCOVERY

MATRIX SPIKE REFORMED ON SCL 11124

TYPE OF MATRIX SOIL

	AMOUNT OF	AMOUNT ANALYTE			MATRIX S		AVE	CONTROL	R % D BETWEEN	CONTROL
COMPOUND	IN SAMPLE	ADDED	AMOUNT RECOVERED	% REC	AMOUNT RECOVERED	% REC	% REC	FOR % REC	MS/MSD	FOR RPD
	MG/KG	MG/KG	MG/KG	%	MG/KG	%	% ,	MG/KG	%	%
PHENOL	<10	1000	973	97	985	98	98	57.0-125	1.0	20
2-CHLOROPHENOL	<10	1000	947	95	952	95	95	54.9-118	0	20
1,4-DICHLOROBENZENE	<5	500	480	96	495	99	98	38.3-117	3.1	20
N-NITROSO-DI-N-PROPYLAMINE	<5	500	494	99	501	100	100	48.7-137	1.0	20
1,2,4-TRICHLOROBENZENE	<5	500	478	96	478	96	96	63.3-107	0	20
4-CHLORO-3-METHYL PHENOL	<10	1000	904	90	914	91	90	60.8-132	1.1	20
ACENAPHTHENE	<5	500	497	99	478	96	98	74.4-114	3.1	20
4-NITROPHENOL	<50	1000	1088	109	1051	105	107	35.5-148	3.7	20
2,4-DINITROTOLUENE	<5	500	548	110	530	106	108	54.3-129	3.7	20
PENTACHLOROPHENOL	<50	1000	934	93	934	93	93	48.5-134	0	20
PYRENE	<5	500	469	94	483	97	96	52.4-131	3.1	20

SAMPLE PREPARATION

ANALYST

SUPERVISING CHEMIST

MARY NEE

DATE

....

2///

RUSS CH

DAT'L

QUALITY CONTROL (QC) SUMMARY

SOUTHERN CALIFORNIA LABORATORY - HAZARDOUS MATERIALS UNIT

1449 W. TEMPLE STREET, CA 90026

TEL: 213 620-3376

PAGE 3 OF 3

DATE SAMPLE RECEIVED:02/27/92

DATE SAMPLE ANALYZED:03/11/92

DATE SAMPLE PREPARED:03/09,10/92

COLLECTOR'S NAME : VAJIE MOTIAFARD

SAMPLING LOCATION: EVERGREEN OIL INC.

6880 SMITH AVE. NEWARK 94560

ANALYTICAL BATCH LAB ID NO .: SCL 11123,11124

EPA METHOD 3540

ANALYTICAL PROCEDURES USED: EPA METHOD 8270 GC/MS FOR SEMIVOLATILE ORGANICS-PAH

SOXHLET EXTRACTION

QC SUMMARY FOR SEMIVOLATILE SURROGATE RECOVERY

	2-F	LUOROPH	ENOL F	P	PHENOL-d6 NITROBENZENE-d5		2-FLUOROBIPHENYL			2,4,6-TRIBROMOPHENOL					
	ADDED	RECO	VERED	ADDED	RECO	VERED	ADDED	RECO	VERED	ADDED	RECO	VERED	ADDED	RECO	VERED
QC SAMPLES / SAMPLE NO.	MG/KG	MG/KG	% REC	MG/KG	MG/KG	% REC	MG/KG	MG/KG	% REC	MG/KG	MG/KG	% REC	MG/KG	MG/KG	% REC
METHOD BLANK	200	185	92	200	201	100	100	90	90	100	99	99	200	166	83
METHOD STANDARD	200	201	100	200	199	100	100	98	98	100	101	101	200	202	101
MATRIX SPIKE	1000	952	95	1000	996	100	500	489	98	500	504	101	1000	990	99
MATRIX SPIKE DUPLICATE	1000	980	98	1000	1012	101	500	507	101	500	485	97	1000	1006	101
LAB CONTROL SAMPLE(LCS)	1000	1038	104	1000	1046	105	500	540	108	500	484	97	1000	1028	103
SCL 11123	200	186	93	200	207	104	100	88	88	100	94	94	200	173	86
SCL 11124	200	203	102	200	210	105	100	91	91	100	102	102	200	183	92
SCL 11124 DUPLICATE	200	205	102	200	217	108	100	96	96	100	105	105	200	197	98
		hin									1				
CONTROL LIMIT FOR %REC	3	8.6-149		5	6.7-141		3	8.2-138		6	0.1-123] 4	1.6-128	

SAMPLE PREPARATION:

ANALYST:

SUPERVISING CHEMIST

MARY NEE!

DATE

MARY NEE

DATE

RUSS CHIN

DATE

HAZARDOUS MATERIA	ALS	Authorization Number	HML No.	2. Page
SAMPLE ANALYSIS REC	QUEST	5 C H 1 0 2 S	То	of]
3. Requestor: Vadic Motion	Fored	4. Phone (3)57/ - 3028	5. Priority 2 3.4.773 a. Authorized by	
Address (To Receive Results): 755	Heinz	Ave., Suite 200, Bork.	777	
6. Date Sampled 2/25/	92	7. Time Sampled 1:15 R Hou		The state of the s
9. Activity: ⊠ SEB ☐ SMB		□ ATD □ PASD □ Oth		的现在分词形式的现在分词形式的
10. SAMPLING LOCATION .	CAD	980695761	b. Region 3 2	
10. DAMIT EING EGGATION	7/7/	a. EPA ID No.		
b. Site Evergreen O	il Inc.		0 7 4	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
	•		1 CITE DAD	05
0 Address (880 8	Smith	Ave., Newark 94:	So g. County	
Number	Street	City Zip	3.000	es septimos dad una septimos do una
11. SAMPLES		Sample Contai	ner	
a. ID b. Collector's No.	c. Lab No.	d. Type e. Type	f. Size g. Field Info	ormation
A	11/23		250gm Sail Con	Elminated
B	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- - Sau - G-	2509 With a	rade as {
D				
<u>E</u>				E
		_		·
H				
12, ANALYSIS REQUESTED	f [] pcb	k. 🗀 Ext. Org	
		;	(Screening)	
a. □ pH ————	g. L	UOA-H/S	i. □ Flash Point	
b. Metal	h. [OA-8240	m. \[\bullet \tau \int \bullet \frac{\frac{1}{p}}{p}	/
c. 🗆 Metals	i. C	OA-8260	n. 🔲	
(Spec) d. W.E.T	i.4 S	1 SVO-8270 PAH	o. 🗆	
			color colorado de la colorada de la	
13. SUPPLEMENTAL REQUESTS			Initials	0.00
/ /			Date	\$2.42. TE
14. CHAIN OF CUSTODY		Thitpin HM	3 1961	10 90500
a. Signature	λ	Name/Title	AHMS 2125	Iclusive Dates
b. Signature		Valie MitiaFard		12-22-6172 sclusive Dates
c. Janes Hickory	Kulla.	_tenice Wakakaab/	77.71	192 /
d./				' - / / ;
Signature 15. SPECIAL REMARKS:		Name/Tula	la:	clusive Dates
16. ASSIGNED TO:			Date	
			Dale	
17. LAB REMARKS:	<u> </u>			L
				В

Southern California Laboratory - Hazardous Materials Unit 1449 Temple Street, Los Angeles Ca. 90026 Telephone 213-620-3376

To : Vajie Motia Fard.

SCL No. : 11123,11124.

Sampling No. : See below.

Date of Report: 3-13-92.

Sample Location: Evergreen Oil Inc, 6880 Smith Ave, Newark 94560. Analytical Procedures Used: Digestion: EPA 3055 Analysis

Analysis : EPA 6010.

Analysis Results:

	<u> </u>	
SCL No.	11123	11124
Field No.	1	2
Units "	mg/Kg	mg/Kg
Silver	<50	<50
Arsenic	<50	<50
Barium	190	200
Beryllium	<5	<5
Cadmium	<10	<10
Cobalt	<50	<50
Chromium	70	70
Copper	<50	60
Molybdenum	<50	<50
Nickel	80	80
Lead	<50	50
Antimony	<50	<50
Selenium	<10	<10
Thallium	<50	<50
Vanadium	<50	<50
Zinc	200	600

Analyst's Signature

Supervisor's Signature

Jay Patel

Date

// Janice Wakakuwa

3/17/92.

QC Summary for Metal Analysis Southern California Laboratory - Hazardous Materials Unit 1449 Temple Street, Los Angeles, Ca. 90026 Telephone 213-620-3376

To: Vajie Motia Fard. Matrix : Soils, sludge & Liquids.

: 3-11/13-92. Date of Analysis Standard Lot Number: SP0292JP100/20.

Sample Set SCL Nos.: 11123 to 11129.

Level of Spike: 10ppm Be,Cd,Se 2ppm

Duplicate done on: 11123.

Spike done on

: 11123.

Sample Location: Evergreen Oil Inc, 6680 Smth Ave, Newark CA 94560.

Analytical Procedures Used: Digestion: EPA 3055

Analysis : EPA 6010.

	Reagent Blank	Method Std	Laboratory Expected		Sample und	% RI	Matrix Spike	
	;	% Rec	Range	Dup A	Dup B	5.5		
I.D. of the	e Labora	tory Control Sample: RMM 1088			Ref Material	SMPL DUP	% Rec	
Units	mg/L	%	mg/kg	mg/kg	mg/kg	%	%	%
Silver	<1	104 ′	360-505	454	448	1	*	96
Arsenic	<1	99	1550-1890	1787	1764	1	*	95
Barium	<1	107	2820-4480	4193	4200	0.2	0.5	98
Beryllium	<0.1	112	41-96	98	97	1	*	109
Cadmium	<0.2	105	406-490	471	450	5	*	96
Cobalt	<1	106	3280-3990	3906	., 3763	· 4	*	100
Chromium	<1	104	2110-2550	3235	2348	32	6	97
Copper	⁻ <1	104	1900-2760	2790	2396	15	*	106
Molybdenum	<1	105	2970-3600	3477	3339	4	*	93
Nickel	<1	104	1660-2010	1926	1852	4	5	94
Lead	<1	104	900-1150	1313	1011	25	*	97
Antimony	<1	103	310-548	510	500	2	*	98
Selenium	<0.2	102	380-500	491	465	5	*	98
Thallium	<1	100	580-1060	752	728	3	*	80
Vanadium	< 1 /-	101	3060-3680	3424	3441	0.5	2	97
Zinc	<1	108	2570-3280	3128	2959	6	58	90
Acceptable	Range	80%-120	0%			< 209	*	75%-125%

* The element was not found in the sample at detectable level.

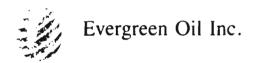
Analyst's Signature

Supervisor's Signature

Janice Wakakuwa

APPENDIX C1

PHOTO AND LAB RESULTS OF THE UNPAVED AREA



March 11, 1993

Ms. Vajie Motiafard DTSC - Enforcement Unit 700 Heinz St. Berkeley, CA 94710

Subject: February 1992 Inspection

Dear Ms. Motiafard:

I was speaking with Daisy Lee today and she mentioned that you still needed a photograph and lab results from the oil spill Evergreen was cited for in your February 1992 inspection.

Enclosed you will find a photograph showing that the area has been completely filled in with concrete. The area is sloped to allow drainage back toward the truck unloading rack. Also enclosed is a lab result which shows that the Total Recoverable Petroleaum Hydrocarbons (EPA Method 418.1) from a sample of dirt taken from the site is 20 mg/kg, well below the hazardous limit.

If you need any additional information, please do not hesitate to give me a call at (510) 795-4400.

Sincerely,

Vane Burns

Environmental Manager







Evergreen Oil 3-11-93

CA CCHE ELAP Accreditation/Registration Number 1233

Analysis Report: Total Recoverable Petroleum Hydrocarbons, EPA Method 418.1 Shaker, DOHS LUFT Method

Client: Evergreen Oil 6880 Smith Avenue Newark, CA 94560

Project:

Rep. Limit

Date Sampled: 08/06/92 Date Received: 08/07/92 Date Extracted: 08/11/92 Date Analyzed: 08/11/92 Date Reported: 08/12/92

Project No.: Contect: Bill Rondeau Phone: (510)795-4400

AELC Contact: Mike Jaeger Job No.: 799416 COC Log No.: 30429 AELC ID No.: L9416 Batch No.: 9674 Matrix: SOIL

ANALYTE

Sample Client	I.D. AELC	Total Recoverable Hydrocarbons (mg/kg)	-Cut-
Soil	1A	20	

10

ND - Not detected at or above indicated Reporting Limit Rep. Limit - Reporting Limit unless otherwise indicated in parentheses.

APPENDIX D CERTIFICATION OF COMPLIANCE



Evergreen Oil Inc.

July 20, 1992

Wei Wei Chui, Unit Chief Surveillance and Enforcement Branch Hazardous Waste Management Department of Toxic Substances Control 700 Heinz Avenue, Suite 200 Berkeley, California 94710

SUBJECT: CERTIFICATION OF COMPLIANCE FOR ENFORCEMENT ORDER #DO 92/93 2-001

Dear Wei Wei Chiu:

This letter shall serve as Evergreen Oil's Certification of Compliance as required under section 3.1.2 and section 3.1.4 of Enforcement Order #DO 92/93 2-001 as follows:

Section 3.1.2:

All sample collecting drums are equipped with funnels which have closable lids. The lids are kept closed at all times except when it is necessary to add or remove wastes.

Section 3.1.4:

The contaminated soil has been removed. A temporary barrier is being utilized to prevent splashing of the area with oily water during clean-up. Concrete will be poured over the area upon approval from DTSC.

Sincerely,

Curtis E. Morgan

Chairman, Evergreen Oil, Inc.

APPENDIX E SUMMARY OF INCIDENTS

INCIDENTS AT EVERGREEN OIL COMPANY

1. Explosion at asphalt storage tank on 10-26-86 during start-up operation.

Hydrocarbon vapors were present in the vapor space of the tank which was ignited by static electricity.

Steps taken:

- a. nitrogen blankets were installed on the asphalt flux tanks including the level indicator cables.
- b. make changes to product discharge into the tanks to prevent potential static discharge build-up.
- c. install a gooler on the asphalt flux product time to the asphalt flux tanks. This should allow cooling of product to approximately to 250 degree F reducing vapor formation and venting from the tank vapor space.
- 2. Human error and mechanical failure resulting in oil spill in the sanitary lift station on Feb. 15, 1987. preventive measures taken:
 - a. conductivity probes for oil detection installed in the discharge line from the A.P. I separator to storage tanks and also in the drain lines from the tanks to the lift station.
 - b. each tank was fitted with a vented loop seal at the 3-foot level so that any oil which has accumulated will be prevented from flowing into the sanitary lift station.
 - 3. Numerous odor complain starting from 1986 to present day.

according to Bay Area Air Quality Management District, 90% of the odor is water related and also some sulfur dioxide stack problem. In 1987 there were some SO2 incidents. Approximately 10,000 gallons of process water is treated each day and then discharged in the sewer system. Union Sanitory District says that house keeping is a big problem discharging oil in the storm drain and also into the sewer system. Failure of valve has resulted in oil discharge into the storm drain on March 16, 1989 and December 18, 1989.

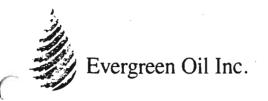
stack emissions has been tested recently and was found in the range of 100 ppm which might be contributing to the odor problem. Charcoal scrubber has been installed at some of the stacks where high emission has been detected. Incomplete burning at the flare may be another factor and increasing the flare surface area has been proposed.

other agencies involved:

Bay Area Air Quality 415-771-6000 contact: Jane Barn

Union Sanitary District 415- 790- 0100 contact: Gary Zawardi

APPENDIX F OIL SPILL INCIDENT REPORT



RECEIVED

APR 7 1989

FIRE DEPT.

April 4, 1989

TO: Newark Fire Department

CC: C. Morgan

U.S. Coast Guard

FROM: Susan Keene/Evergreen Oil

Lusan)

RE:

OIL SPILL ON 03/16/89

I. SUMMARY:

On March 16, around 1500, Alameda Flood Control (AFC) notified Evergreen Oil, Inc. that an oil spill had occurred in the Alameda Flood Control ditch. Due to the sheen of oil still visible from Evergreen Oil's effluent pipe, AFC suspected Evergreen as the source. At this time, AFC also notified the Newark Fire Department, Water Quality Board and the U.S. Coast Guard that a spill had occurred. The actual source remained unidentified.

Approximately 15-30 gallons of drain oil was released to the water in the Alameda Flood Control ditch. The exact time of release can not be determined. AFC had contained the spill at a culvert located on Mowry Ave., by floating absorbant booms across the ditch.

At approximately 1700, members of the Evergreen Oil staff identified the source of the spill on Evergreen property. An emergency response team was immediately dispatched to clean up the spill. The Newark Fire department was notified by Evergreen that they had assumed responsibility for the spill.

II. CLEAN-UP:

A gear-pump bobtail arrived at the ditch by Mowry at approximately 1730 and began removing the layer of oil off the surface of the water. Absorbant pads were placed on the surface to assist in the removal of the sheen. The ditch was inspected in both directions for approximately one half a mile to check for any oil pockets travelling down stream. These spots were removed by absorbant pads.

All oil and water removed from the ditch was transported to Evergreen Oil, Inc., a fully permitted hazardous waste oil



re-refinery via registered hazardous waste hauler, California Oil Recyclers. Approximately 15 drums (55 gallon size) of

oil contaminated debris were removed from the ditch and transported to the Evergreen facility. The drums will be shipped to a fully permitted hazardous waste landfill to be disposed of as oil contaminated debris.

III. CAUSE:

The cause of this oil spill was due to the heavy rains that occurred on the morning of 03/16/89 and a malfunctioning valve in Evergreen's water discharge line.

All water generated on Evergreen Oil Inc.'s concreted area is collected in a retention pond prior to treatment and then discharged to the Union Sanitary District. There are drains located around the perimeter of the site and in the facility parking lot for collecting stormwater run-off. The parking lot drains discharge directly to the Alameda Flood Control ditch. The drains located around the perimeter of the site can be discharged to the Alameda Flood Control ditch by opening a valve (after visual inspection of contents for clarity). Typically, these drains are pumped out with a bobtail and run through the water treatment process in lieu of discharging to the Alameda Flood Control ditch.

After heavy rains, the water retention pond filled higher than the level of the drains feeding into it; causing the drains to overflow. The overflow ran into a containment ditch surrounding the tank farm. This channeled the oil contaminated water over the edge of the ditch into the perimeter drains. The valve containing the water in the perimeter drains broke loose from the extra pressure; discharging oil contaminated water directly to the flood control ditch.

IV. FACILITY CLEAN-UP:

Remedial action was also undertaken at the Evergreen facility. The broken valve was temporarily plugged and all drains were thoroughly rinsed. The rinse water was removed with a gear pump bobtail. This insured that no additional oily water would enter the flood control ditch. All soil that was contaminated by the oily water was excavated and drummed as oil contaminated debris. This will be shipped out as hazardous waste to a permitted hazardous waste landfill.



V. PRECAUTIONARY MEASURES:

To avoid any potential spills fom occurring again, Evergreen is installing a new valve on the drain line. The integrity of the valve will be inspected on a regular basis. The level of the retention pond will also be monitored on a more regular basis, assuring that back-up of the drains does not occur.

APPENDIX G

BAY AREA AIR QUALITY MANAGEMENT DISTRICT PERMIT



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109 (415) 771-6000

Product Tank Fuel Oil (507)

This document does not permit the hole

Plant# 1190

Page:

1

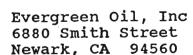
APPENDIX G Page 1 of 8

TO OPERATE

Expires: JAN 1, 1993

any District regulation or other law.

[exempt]



S# 	DESCRIPTION [Schedule]	PAID
1	Heat Transfer Operation - Other, 10857K BTU/hr max, Multifuel Hot Oil Heater, H401 [B] Abated by: A2 Sulfur Dioxide Control Emissions at: P1 Stack	127
. 3	Fixed roof tank, 10K gal, Light Brown, Hydrocarbon, 12 ft diam Pre-Selection Tank (501-A) [exempt]	0
4	Fixed roof tank, 10K gal, Light Brown, Hydrocarbon, 12 ft diam Pre-Selection Tank (501-B) [exempt]	
5	Fixed roof tank, 10K gal, Light Brown, Hydrocarbon, 12 ft diam Pre-Selection Tank (501-C) [exempt]	O
6	Fixed roof tank, 25K gal, Light Brown, Hydrocarbon Pre-Selection Tank (501-D) [exempt]	0
7	CHEM/MISC-HDLG> Storage, Waste water Post Treatment Water Tank (512-A) [exempt] Abated by: Al5 Adsorption, Activated Carbon/Charcoal	0
8	CHEM/MISC-HDLG> Storage, Waste water Post Treatment Water Tank [exempt] Abated by: A15 Adsorption, Activated Carbon/Charcoal	0
9	Fixed roof tank, 50K gal, Light Brown, Multi-liquid Slop Tank (502) [C] Abated by: All Adsorption, Activated Carbon/Charcoal	83
10	Fixed roof tank, 200K gal, Light Brown, Lube oil, 33.6 ft diam Feedstock Tank (503-A) [exempt]	0
11	Fixed roof tank, 200K gal, Light Brown, Lube oil, 33.6 ft diam Feedstock Tank (503-B) [exempt]	0
^{20/} 12	Fixed roof tank, 50K gal, Light Brown, Gas oil, 20.6 ft diam	0





BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STRFET SAN FRANCISCO, CALIFORNIA 94 109 (415) 771-6000

Plant# 1190

Page:

2

Expires: JAN 1, 1993

FEMNI

OPERATE

This document does not permit the holder to violate any District regulation or other law.

s# 	DESCRIPTION [Schedule]	PAID
13	Fixed roof tank, 11K gal, Light Brown, Lube oil, 12 ft diam Product Tank (508) Lube Oil [exempt]	0
14	Fixed roof tank, 25K gal, Light Brown, Gas oil, 13.5 ft diam Product Tank (509) Fuel Oil [exempt]	0
15	Fixed roof tank, 25K gal, Light Brown, Gas oil, 13.5 ft diam Product Tank Fuel Oil (510) [exempt]	0
16	Fixed roof tank, 35K gal, Aluminum, Asphalt, 15.5 ft diam Asphalt Tank (511-A) [exempt] Abated by: Al2 Adsorption, Activated Carbon/Charcoal	0
17	Fixed roof tank, 35K gal, Aluminum, Asphalt, 15.5 ft diam Asphalt Tank (511-B) [exempt] Abated by: Al3 Adsorption, Activated Carbon/Charcoal	0
19	PET REF> Oil-water separator, Oil/water mixture Oil/Water Separator [G2] Abated by: Al4 Adsorption, Activated Carbon/Charcoal	759
21	Bulk plant (truck/rail), Multi-liquid, 4 pumps Transport Loading Facility 4 Nozzles [F]	83
22	Bulk plant (truck/rail), Distillate oil, Gas oil, Lube oil Oil Collection Truck off Load Facility 4 Nozzles [F]	83
23	PET REF> Hydrotreating/hydrofining, .05 thou barrels/hr max Hydrogen Finishing Unit [G1] Abated by: A2 Sulfur Dioxide Control Emissions at: P1 Stack	345
25	Fixed roof tank, 50K gal, Light Brown, Lube oil, 20.6 ft diam Product Tank (504) Lube Oil [exempt]	0
26	Fixed roof tank, 50K gal, Light Brown, Lube oil, 20.6 ft diam Product Fuel Tank (505) [exempt]	0
30	Industrial Flare - Other (not refinery), 50K BTU/hr max Flare X-612 System (Ground & Elevated) Emissions at: P30 Stack [F]	83
1	Refinery Process Heater/Furnace, 12000K BTU/hr max Advanced Refinery Heater [B]	139

939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109 (415) 771-6000 TO OPERATION

Page 3 of 8

Plant# .1190

Page:

Expires: JAN 1, 1993

Exhibit I.B.2.

· fhis document does not permit the holder to violate any District regulation or other law.

S#	DESCRIPTION [Schedule]	PAID
32	Industrial Boiler - Other, 8960K BTU/hr max, Multifuel Boiler X-604 Abated by: A32 Sulfur Dioxide Control	104
33	Fixed roof tank, 50K gal, Light Brown, Lube oil, 20.6 ft diam Product Tank (506-A) Lube Oil [exempt]	0
34	Fixed roof tank, 50K gal, Light Brown, Lube oil, 20.6 ft diam Product Tank (506-B) Lube Oil [exempt]	0
35	Fixed roof tank, 50K gal, Light Brown, Lube oil, 20.6 ft diam Product Tank (506-C) Lube Oil [exempt]	0
36	Fixed roof tank, 50K gal, Light Brown, Hydrocarbon Product Tank Lube Oil (506-D) [exempt]	. 0
. 41	PET REF> Oil-water separator, Refinery sour waste water Water Treatment System [G2]	75
42	CHEM/MISC-HDLG> Storage, Waste water Truck Water Tank (T-651A) [exempt]	0
43	CHEM/MISC-HDLG> Storage, Waste water Truck Water Tank (T-651B) [exempt]	. 0
44	CHEM/MISC-HDLG> Storage, Waste water Truck Water Tank (T652) [exempt]	0

10 Permit Sources, 23 Exempt Sources Total Fees \$2565.00 Invoice #27270 Paid

*** See attached Permit Conditions ***



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

SAN FRANCISCO, CALIFORNIA 94109

Plant# 1190

Page:

Exhibit I.B.2.

Page 4 of 8

OPERATE

Expires: JAN 1, 1993

This document does not permit the holder to violate any District regulation or other law.

*** PERMIT CONDITIONS ***

Source#	1	subject	to	condition	ID#	1650
Source#	7	subject	to	condition	ID#	6094
Source#	8	11	**	11	ID#	6094
Source#	9	11	11	11	ID#	6094
Source#	12	11	**	11	ID#	6094
Source#	14	11	11	11	ID#	6094
Source#	15	11	11	11	ID#	6094
Source#	16	11	**	11	ID#	6094
Source#	17	11	11	11	ID#	6094
Source#	19	subject	to	condition	ID#	1370
Source#	21	subject	to	condition	ID#	6094
Source#	23	subject	to	condition	ID#	1650
Source#	26	subject	to	condition	ID#	6094
Source#	30	subject	to	condition	ID#	1650
Source#	31	subject	to	condition	ID#	877
Source#	32	subject	to	condition	ID#	4501
Source#	42	subject	to	condition	ID#	6094
Source#	43	11	11	Ħ	ID#	6094
Source#	44	11	11	**	ID#	6094





[32-d] (415) 771-6000

TO OPERATE

Page 5 of 8

Plant# 1190

Page:

5

Expires: JAN 1, 1993

Exhibit I.B.2.

This document does not permit the holder to violate any District regulation or other law.

*** PERMIT CONDITIONS ***

CONDITION ID #1650

1. Evergreen Oil shall not exceed the following emission limits on a facility wide basis: Sulfur Dioxide 125 lb/day

Nitrogen Oxides 125 lb/day

 Waste Oil processing shall not exceed 16MM gal/yr or 1200 bbl/day.

CONDITION ID #6094

PERMIT CONDITIONS

Conditions for:

S-7, S-8, S-9, S-12, S-14, S-15, S-16, S-17, S-26, S-42, S-43, and S-44

- 1) Odorous emissions from the twelve tanks (S-7, S-8, S-9, S-12, S-14, S-15, S-16, S-17, S-26, S-42, S-43, and S-44) shall be routed through the burner fuel gas inlet line to the furnace burner of S-1 for abatement when S-1 is in operation and not experiencing operational problems.
- When S-1 is not used all emissions from the twelve tanks (S-7, S-8, S-9, S-12, S-14, S-15, S-16, S-17, S-26, S-42, S-43, and S-44) shall be vented to a District approved Carbon Adsorption System (A-33).
- 3) Effective December 1, 1991 the operator shall record once per day the outlet POC concentration of A-33 Carbon Adsorption system using a District approved TLV sniffer when A-33 is in operation. The results of this sampling shall be entered on a log and reported to the District on a semiannual basis.
- 4) The carbon in A-33 shall be replaced when the outlet concentration reading on the TLV sniffer exceeds 50 ppm of POC. If this degree of control is insufficient to reduce the impact that that these tanks have on community odors, a more restrictive POC level will be

Company of the second s



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109 (415) 771-6000

Plant#'1190

Page:

6

NVI OPERATE

JAN 1, 1993 Expires:

This document does not permit the holder to violate any District regulation or other law.

*** PERMIT CONDITIONS ***

set to require more frequent change outs of the carbon. Sufficient carbon inventory must be kept on site to 5) completely replace the Carbon in A-33. Whenever the Carbon is replaced, the replenishment of the standby

supply of carbon shall be completed within fourteen

calendar days.

The permit Kolder shall maintain records in a District 6) approved log for: (a) carbon change out intervals and (b) POC exhaust concentration. All records shall be maintained for a period of at least 2 years from date of entry. The logs shall be kept on site and made available to the District staff on request.

Conditions for A-21

Emissions from loading operations at S-21 shall be 1) routed by way of vapor recovery through Carbon Adsorption System (A-21) whenever loading operations are occurring at S-21.

Effective December 1, 1991 the operator shall record 2) for each loading operation at S-21 the outlet POC concentration of the A-21 Carbon adsorption system using a District approved TLV sniffer. The results of this sampling shall be entered on a log and reported to the District on a semiannual basis.

The carbon in A-21 shall be replaced when the outlet 3) concentration reading on the TLV sniffer exceeds 50 ppm of POC. If this degree of control is insufficient to reduce the impact that S-21 has on community odors, a more restrictive POC level will be set to require more

frequent change outs of the carbon.

Sufficient carbon inventory must be kept on site to 4) completely replace the Carbon in A-21. Whenever the Carbon is replaced, the replenishment of the standby supply of carbon shall be completed within fourteen calendar days.

The permit holder shall maintain daily records in a 5) District approved log for: (a) carbon change out intervals and (b) POC exhaust concentration.



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109 (415) 771-6000

Plant# 1190

Page:

Expires: JAN 1, 1993

This document does not permit the holder to violate any District regulation or other law.

*** PERMIT CONDITIONS ***

records shall be maintained for a period of at least years from date of entry. The logs shall be kept on site and made available to the District staff on request.

CONDITION ID #1370

- Evergreen Oil shall test the carbon canister systems on a daily basis for H2S and total hydrocarbons. Evergreen Oil shall replace any canisters that shows an emission o H2S exceeding 50 ppm. Evergreen shall keep a sampling log for each carbon system that lists the apparent concentrations of H2S and hydrocarbon for each canister system and replacement dates. These records shall be retained for at least one year and be available for review by the staff of the BAAQMD.
- Source 7, T512A, shall not be operated unless vented to 2. Carbon Canister System, A-15.
- Source 8, T512B, shall not be operated unless vented to 3. Carbon Canister System, A-15.
- Source 9, T502, shall not be operated unless vented to Carbon/Permanganate Canister System, A-11.
- Source 16, T511A, shall not be operated unless vented 5. to Carbon Canister System, A-12.
- Source 17, T511B shall not be operated unless vented to Carbon Canister System, A-13.
- Source 19, X454, shall not be operated unless vented to 7. Carbon Canister System, A-14.

CONDITION ID #877

- 1. This heater shall be fired only with natural gas.
- 2. This heater shall not exceed more than 40 ppm by volume and 14.2 lb/day of NOx (calculated as NO2)



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

SAN FRANCISCO, CALIFORNIA 94109

(415) 771-6000

Plant# '1190

Page:

8

Exhibit I.B.2.



Expires: JAN 1, 1993

This document does not permit the holder to violate any District regulation or other law.

***	PERMIT	CONDITIONS	***	
at 3% oxygen.				
CONDITION ID #4501				
Boiler s-32 shall be	fired	exclusively	with natural gas.	

----- END OF CONDITIONS -----

APPENDIX H VSI PHOTOGRAPHS



Photo #3: Photo of the tank farm. These tanks on the western side of the tank farm are used for the storage of waste oil. Photo facing east.



Photo #4: Tank 512A is currently out of service. The tank, at one time, stored waste oil. Note the stains on the exterior of the tank.



Photo #1: Photo of Evergreen Oil, Inc., located at 6880 Smith Ave.



Photo #2: Photo of Evergreen's loading/unloading area and tank farm in the background.



Photo #5: The western section of the tank farm appeared fairly clean. The liquid on the containment floor is rainwater. Photo facing south.



Photo #6: Photo of crack on the containment floor noted in the western section of the tank farm.



Photo #7: Photo of the northwestern corner of the tank farm. Note the layer of oil on the floor. Evergreen explained that the slope of the floor caused rainwater mixed with oil residue to run off to this area. Therefore, the oil slick was much more concentrated in this corner. Photo facing northeast.



Photo #8: Photo of sump X-508 that is used as the secondary containment for the tank farm. Photo facing southeast.



Photo #9: Photo of tanks located on the eastern side of the tank farm. Note the level of rainwater accumulated in the tank farm. The container storage area can be seen in the background. Photo facing east.



Photo #10: Photo of Tank 503A. Tank 503A is a 200,000 gallon tank used for storing used oil feedstock.



Photo #11: The oily water separators are located below surface and surrounded by a containment wall.

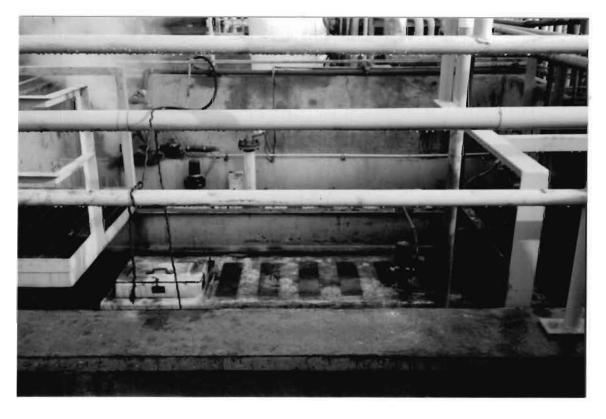


Photo #12: Both of the oily water separators, X-453 and X-454, are situated in the same secondary containment area.



Photo #13: Photo of the Process Area. Photo facing southeast.



Photo #14: Note the cracks and chips of the concrete floor in the Process Area. Photo facing north.



Photo #15: Photo of a crack observed in the Process Area.



Photo #16: It appeared that a strong chemical spilled and ate some of the concrete block and the concrete floor. This section of the Process area was not uniformly paved like the other sections of the Process Area. Also note that the floor to the left of the net is severly cracked.



Photo #17: Photo shows a different angle of Photo #16. The sump close by most likely contained the spill.



Photo #18: A leak was observed in this area of the Process Area. Evergreen explained that oil leaked when the pump was being packed. Photo facing south.



Photo #19: A close up view of the leak. Note the layer of oil mixed with probably rainwater on the ground.



Photo #20: Photo of a crack in the Process Area. Photo facing west.



Photo #21: Photo of cracks in the Process Area.



Photo #22: Photo of the container storage area. Photo facing west.



Photo #23: Photo of the container storage area. Note the crack on the containment floor. Photo facing west.



Photo #24: Photo of another crack on the containment floor of the container storage area.



Photo #25: Photo of a sump in the container storage area. Note the condition of the concrete surrounding this sump. Also note some stains around this area.



Photo #26: During the VSI, an open can of lube oil was observed in the container storage area. Some of this oil had spilled onto the floor. Photo facing southwest.



Photo #27: Photo of the tanker truck rack. Note the cracks on the containment floor. Most of the cracks have been filled. The bobtail rack is in the background. Photo facing north.



Photo #28: Photo of the tanker truck rack. Note the condition of the berm. The liquid in this area is rainwater.



Photo #29: Photo of the tanker truck rack. Photo facing northeast.



Photo #30: A close up view of the cracks that have been filled in the tanker truck rack.

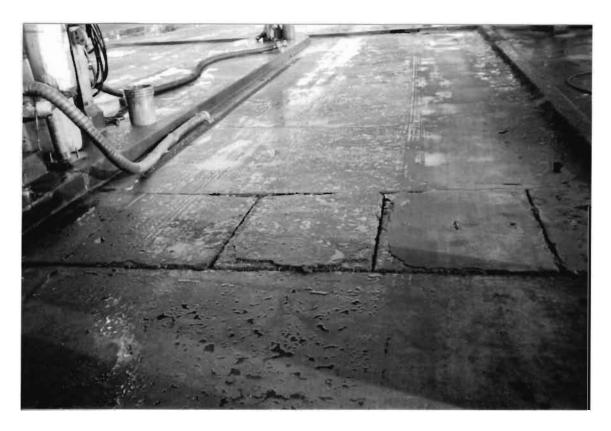


Photo #31: A 21,000 gallon containment vault to provide added protection for a major spill is found below this containment floor. Photo facing northeast.



Photo #32: Note the gap between the berm and the containment floor.



Photo #33: Photo of the bobtail rack. The orange glow on the floor appeared to have resulted from a past spill. The liquid on the floor is rainwater. Also note the funnels sitting on the floor. Photo facing northwest.



Photo #34: A close up view of a funnel. Note the orange brownish stains to the right of the funnel.



Photo #35: The brownish stain in this photo appeared to be some kind of spill. The spilled material is unknown. Other stains were also very evident around this bobtail rack. Photo facing northwest.



Photo #36: Cracks are evident in the bobtail rack. These cracks are not filled. Also note the stains around the area of the hose.

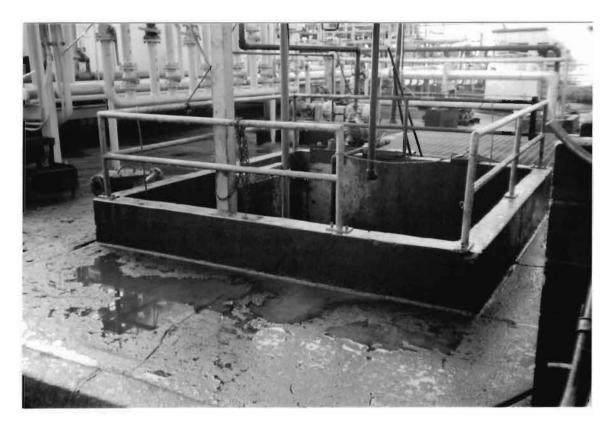


Photo #37: The loading rack sump, X-510, is a below surface sump and the sump is contained by a concrete wall. Photo facing south.

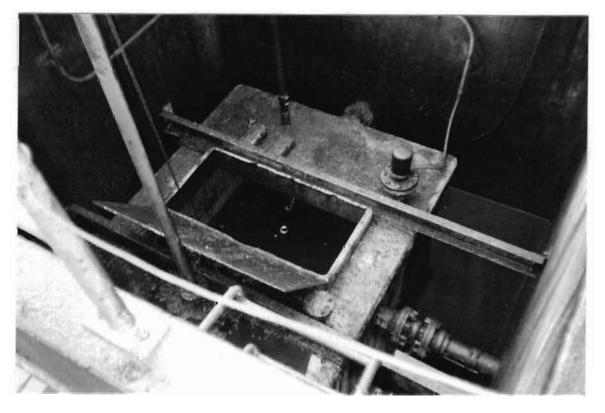


Photo #38: Photo of sump X-510. Note that the cover to the sump was left open and some debris had fallen in.



Photo #39: Photo of drums containing filtered debris. This unit is identified as the filter cleaning area (SWMU #6).



Photo #40: Photo of buckets and tools used to clean up filters. The photo shows an area inside the filter cleaning area. Photo facing west.



Photo #41: Photo of a metal rack used for cleaning filters. Note the debris inside the metal bin. A lid is supposed to cover the bin, but at the time of the VSI, the lid was nowhere in site. The filter cleaning area is identified as SWMU #6.



Photo #42: Photo of sump in the filter wash area. Note the slick of oil mixed with rainwater on the floor. Photo facing south.



Photo #43: Photo of an accumulation storage area for spent acid.

Photo #44: Photo of an accumulation storage area for waste oil. This accumulation storage area is in the laboratory.

